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JOURNAL

OF THE

MILITARY SERVICE INSTITUTION

OF THE

UNITED STATES

VOLUME XXXVIII



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BRIG.-GEN. T. F. RODENBOUGH, U. S. A., EDITOR.

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GOVERNOR'S ISLAND

1906

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JOURNAL
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UNITED STATES.

"I cannot help plead to my countrymen, at every opportunity, to cherish all that is manly and noble in the military profession, because Peace is encroaching and no man is wise enough to foretell when soldiers may be in demand again."—GENERAL SHERMAN.

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Seaman Prize—1905.

HOW FAR DOES DEMOCRACY AFFECT THE ORGANIZATION AND DISCIPLINE OF OUR ARMIES, AND HOW CAN ITS INFLUENCE BE MOST EFFECTUALLY UTILIZED?*

BY LIEUT.-COLONEL JAMES S. PETTIT, EIGHTH U. S. INFANTRY.
GOLD MEDALIST M. S. I. (1896).



HERE *form* of government is not of itself a guarantee of peace and prosperity, nor a sure indication of oppression and unhappiness; neither does it indicate military strength or weakness. We have witnessed the sublime spectacle of two autocratic governments at war. One, the pagan, reaped great victories, and exhibited a bravery, skill and discipline rarely, if ever, equaled. The other, the Christian, has met universal defeat on land and at sea. The latter government controls 126,000,000 white population and vast territory; the former 46,000,000 of people and a territory about the size of the State of Ohio.

These results cannot be laid to the form of government, for they are very similar. They must be sought in the virtues of the rulers and the characteristics of the subjects. The great conquerors of the world have been monarchs wielding practically unlimited powers.

*Read before a General Meeting M. S. I. at Governor's Island, Dec. 13, 1905.

It is a self-evident proposition that a democracy based on the will of millions of people, expressed through devious and changing channels, cannot be as skilful or efficient in the conduct of military affairs as a monarchy headed by a wise and powerful chief. The very essence of military strength is "one man power"—the strong commander, whose wishes are paramount and must be felt to the lowest unit in the army. When he is ruler of the nation as well, he is court of last appeal, and secures that unity of command and control of resources, so vital to the successful organization, the discipline and campaigning of armies. The further we depart from these principles the weaker we become.

A monarchy is more permanent, and can therefore establish a fixed military policy, so necessary in the building up of an army. A consistent definite policy with some faults is better than a constantly changing one.

The sovereign is not fettered by the spoils system, nor indebted to politicians for his office. He is usually an educated soldier. Clausewitz and Von Moltke were tutors to the crown princes of their day. From heredity the officers are accustomed to command, and the men to obey. Recognizing that the autonomy of their country and their claims to the crown may be put to the test of arms they must constantly be prepared for war, and compulsory military service is accepted as the natural obligation of every citizen. With our great monarchies the problems of organization and discipline are easy. In these respects monarchical governments have an advantage.

On the other hand democracies, as a rule, represent peace. They do not respond to the personal ambitions of an individual, nor are they readily drawn into schemes for territorial aggrandisement involving war. Their proper military policy, therefore, is preparation for defense. Professor Goldwin Smith says our "Democracy is on its trial." Possibly so—it is young in the history of nations.

I—"HOW FAR DOES DEMOCRACY AFFECT THE ORGANIZATION AND DISCIPLINE OF OUR ARMIES?"

Let us consider some of its features which exert an influence on the organization and discipline of its military forces:

I—CONGRESS.

Congress has power "To raise and support armies, but appropriations for this purpose must not provide expenditures for a period of more than two years.

"To make rules for the government and regulations of the land and naval forces, and to provide for calling forth of the militia to execute the laws of the union, to suppress insurrection and repel invasion.

"To provide for organizing, arming and disciplining the militia and governing such part of it as may be employed in the service of the United States, reserving to the States respectively the appointment of the officers and the authority of training the militia according to the discipline prescribed by Congress."

The existence, organization and discipline of our armies are dependent on the will of Congress, two legislative bodies—one elected by the people for two years, the other by the legislatures of the States for six years.

The first is more nearly representative of the people at any particular time, and as Mr. Bryce says, it represents neither the best nor the worst, but rather the medium ability of the people, with brilliant exceptions. It is a constantly changing body. Some members of exceptional ability are re-elected many times, but the average is from two to three terms. The majority go without having left any impress on the course of legislation. Members are more interested in the public works in their districts than in army appropriations. As a rule their knowledge of military affairs is limited, and their interest small. When war comes the army represents so many appointments to be secured from either the President or the governors. Legislation, which should have been carefully mapped out in time of peace, is replaced by hasty and ill-digested acts. But few have given any thought to the military history of our country, and consequently they cannot draw on the experience of the past, which is an open book to those who wish to read.

We have no method of appealing to the people except through elections. In times of emergency, therefore, Congress must represent as nearly as it can the sentiments of the country. The Speaker of the House is the most powerful official of the government next to the President, and he may even

thwart the desires of the latter. He is the real czar. He appoints the committees and selects the chairmen, and with the assistance of the latter he controls the legislation of the country. The average member of Congress has about as much influence on the course of the House as a doe at a council of elephants. Some writer has said "The President, the Speaker and a dozen members of the Cabinet and Congress are the government." The others are lashed to the wheels of the party car, and must needs go with the drivers. The authorization of the three battalion organizations for our army was lost in 1890 in the last hours of Congress, because the Speaker refused to recognize the member who was to call it up. It was only secured under pressure of war in 1898, when, as usual, it was too late. The vote of Congress represents its political opinions instead of its personal beliefs. The abolishment of the canteen is an illustration of the fact that, even in times of peace, legislation for the army comes out of the hopper greased with the slimy oil of political spoils and party expediency unredeemed by the salt of honest, manly independence and belief as to the right and justice of the cause and the needs of the country.

Congress is the place of beginning; no scheme for organization of our military strength can be given life save by the grace of Congress. A study of the military history of our country will enable you to judge as to the probability of action in any particular case.

The Senate is a more conservative body. Most of the members are professional politicians. Some rise to the dignity of statesmen. Its course in military legislation is not very different from that of the House. Both work through committees. Senators hold their seats much longer than Representatives, consequently they widen their sphere of political influence, and become more powerful. Both Senators and Representatives have many political debts to be paid, and the principal coin is office—State and National.

2—THE PRESIDENT.

The President is Commander-in-Chief of the army, and there is nothing in the law to prevent him from taking the field in person should his fancy lead him in that direction, or he may assume actual command at the capital as Mr. Lincoln did, frequently changing plans of campaign, dispersing

armies just as they were concentrated for effective action, communicating directly with subordinate commanders to the distress of the commanding general, and many similar acts harmful to the success of the troops. Six of our Presidents have been distinguished generals, but none were in office during war. The President is elected by the votes of the people, and is accountable to them for the manner in which he performs the functions of his great office. He is usually a politician with other qualifications. He is human, and has a laudable desire for re-election, and is also grateful for past favors. He must be democratic and approachable, and must recognize his obligation to the party which nominated and elected him. One needs to have spent but a few day in Washington in 1898 to have noted the army of office seekers that besieged the White House, eager and anxious to advance their claims for office, either large or small. General Alger says: "Great and constant was the pressure for appointment. Applicants, by mail and in person, would beg, appeal and demand commissions. Before breakfast, and even after midnight, they besieged the secretary's residence with a determination superb in its inflexibility."

Mr. Henry Villard writing of 1861 in his memoirs says: "There were in all the North but a few hundred men to be found regularly trained for the soldier's trade, while thousands were wanted for immediate service. * * * Unfortunately, the executive saw a welcome and plentiful opportunity to reward political adherents with commissions in the army, and only too willingly used this extensive new patronage without regard to the fitness of the recipient. As a rule in all the States the professional politicians secured the new honors and emoluments. It is safe to say that four-fifths of all the field-officers of the three-months' regiments appearing in Washington represented this class of men, and the same practice prevailed in the vast lines of volunteers raised subsequently, though to a diminished extent." This is an important feature of our government, and reaches deeply into the organization of our armies in war. It is an inheritance from revolutionary days, a vampire fast following on the breath of freedom. No President can escape it. It grows in power with the progress of the country. Washington wrote in 1775: "Such a dearth of public spirit and such want of virtue, such stock jobbing and fertility in all the low arts to obtain ad-

vantages of one kind or another in this great change of military arrangement I never saw before, and pray God's mercy I may never be witness to again. What will be the end of these maneuvers is beyond my scan. I tremble at the prospect."

These three testimonials to the far-reaching and insistent demands for office from 1775 to 1900 show that the practice has fastened like a leech to the body of our government, and no President will ever be able to ignore it. He may escape in part by making some qualifications necessary for the places, but in every case of failure he would be besieged for clemency. We can scarcely hope to escape this evil in the organization of our armies.

3—THE SECRETARY OF WAR.

The Secretary of War is the President's chief military aid and adviser. He is usually a civilian without military training, and devoid of knowledge of the laws and customs governing armies in peace and in war.

His acts having been decided to be those of the President himself, he has great power, and should he issue orders of great moment on his own responsibility, as Mr. Stanton did frequently, the President must either approve them or discredit his cabinet officer. He might also, with the consent of the President, take the field in person, as Secretary Armstrong did in 1812, which was about all that was necessary to complete the demoralization of our army, already low in morale and discipline. General Harrison resigned. The secretary issued orders in his own name directing the movements of Dearborn and Wilkinson, until the President finally ordered him "to leave to the military functionaries the discharge of their own duties on their own responsibility." These words of Madison should be in letters of gold over the portals of the secretary's office. Congress has furnished the secretary with a chief of staff assisted by the General Staff to advise him in military affairs. There is no law, however, compelling the secretary to accept his advice, nor to prevent the chief of staff from being sent into the field if the secretary should desire to dispense with his presence.

We certainly hope that the policy of the early years of the War of the Rebellion will never be repeated. We will hear more of them later. If secretaries could be persuaded to

confine their labors to providing the ways and means, leaving the strategy and movements of the troops to the commanding general in the field, it would be a great advance in our military policy. In this connection we cannot do better than to quote Gen. Zachary Taylor's respectful protest against the action of the War Department in furnishing the plans of campaign for his army * * * "While I remain in command of the army against Mexico, and am therefore jointly held responsible by the government and the country for the conduct of its operations, I must claim the right of organization of all detachments from it and regulating the time and manner of their service. Above all do I consider it important that the Department of War should refrain from corresponding directly with my subordinates, and communicating orders and instructions on points which by all military precepts and practice pertain exclusively to the general in chief command. Confusion and disaster alone can result from such a course. * * * I conceive that this mode of regulating details and ordering detachments direct from the Department of War is a violation of the integrity of the chief commander in the field pregnant with the worst evils."

4. GOVERNORS.

There is another set of officials in our form of government whose powers are in some respects unlimited, and whose control over the organization of our armies is greater even than that of the President, viz., the governors of the sovereign States. There is no power, save force of arms, to coerce a State. She may be cajoled or persuaded, but she cannot be forced. She is securely intrenched behind the powers left to her under the Constitution, and guards them jealously. The governors organize the militia and appoint the officers. Thus the President may call out the militia, but the governor may have failed to organize it. Congress has always given the governors authority to appoint the officers of volunteers, save in the case of the twenty-four regiments of United States Volunteers organized for Philippine service, and it will continue to give this privilege to the governors if any considerable number of volunteers are called out. In time of war the appointment and promotion of all officers below the grade of brigadier-general rests in the hands of the governors. Thus State allegiance and State politics follow them into the service

of the United States. This was very evident during the Spanish-American War. One of the leading issues of the War of the Rebellion was the right of the States to secede, yet the North made war as a confederacy—the South as a nation with conscription and with almost dictatorial powers given to its president. The War of the Rebellion was brought to a successful end only from the fact that the “War Governors” were loyal men devoted to the cause and intent on saving the government and their own political fortunes at the same time. Any scheme for utilizing the militia or State volunteers must provide for securing the good will of the governors if it is to be successful. Although the United States appropriates money for the support of the organized militia, it cannot send an instructor into the State except “on request of the governor.” In 1898 it was difficult to convince some governors that they could not command their State volunteers after they had been mustered into the service of the United States.

The United States, it is true, prescribes the form of organization, but it does not specify the quality of the materials, except physically—that is left to the governors. It is not difficult to understand the enormous political power it gives the governor and how deeply it reaches into the organization and discipline of our troops. Discipline begins in the company. What can it be when the enlisted men elect their officers? What can it be when every soldier knows that he has a friend at home who will appeal his case and get him pardoned or discharged? Also, when the soldier understands that his vote at home is more important than his presence at the front, what incentive has he to be on the firing line? We must keep in mind that our entire system of government, from the township to the White House, is based on partisan politics.

These “rights” of the States I consider the weakest link of the chain in time of war. If the war is popular the forces of the nation will rally around the colors, but the organization will represent the States rather than the nation, and discipline will be feeble.

5. PUBLIC OPINION.

In democratic governments there is a dominating power called “public opinion.” It is the real government—pres-

dents, senators, governors are its servants. When it speaks in commanding tones they obey. It makes and unmakes governments; it selects its own heroes even if they remain in favor but one hour. If it should demand the organizing and maintaining of a strong regular army we should have it; as it is not sufficiently interested to make its wishes known our military legislation vibrates with the moods of Congress and the financial prosperity of the country.

Public opinion is to a great extent a reflex of national characteristics. We are of sanguine temperament; we believe in our star; we regard the law lightly; we place thousands of laws on the statutes, but are lax in enforcing them. Juries are proverbially lenient; offenses are soon condoned, then forgotten, especially where public officials are the offenders; evils must become oppressive to be eradicated; we are a military but not a warlike people; that is, we have the courage, temperament and intelligence of the best soldiers, but prefer peace to war. These qualities in the military service make rigid discipline impossible. Deserters, sentinels asleep on post and guerillas should be shot, but with us the penalty is rarely exacted. Military offenses count for nothing among civilians. Even Congress will not authorize sufficient punishment for desertion, nor a reasonable reward for the capture of deserters.

Through these same weaknesses of character it is impossible for us to maintain the value of rewards. They are no sooner established than they are depreciated by being bestowed for services of doubtful import. The brevets recommended for service in Cuba must have included every officer who landed on the island. They touched the sense of humor of the Senate so hard that it failed to confirm them. Many of our national characteristics are found in the Regular Army. Courts, examining and retiring boards sometimes find good-fellowship a more pleasant path than Spartanlike duty.

A government with these characteristics cannot maintain an organization or discipline comparable to that of little Japan. We must recollect that war augments the political and social evils of the time. A government that is weak and lax in time of peace will not become more virtuous in war.

The government of a pure democracy will not be better

than the standard set by the average intelligence and morality of its voters.

6. HISTORY.

History is largely the story of graveyards and dead issues. The history of a new country which has frequently changed its policies and administrations is not an infallible guide as to the future. The national characteristics of a people do not change rapidly. A democratic form of government must reflect these to a marked extent. If then we find certain well-defined customs, prejudices and weaknesses running through our military policy from the beginning of freedom to date, we may assume they will continue. The older they become the more difficult it will be to change or to eradicate them. The facts contained in the summary of our military history have been taken in the main from General Upton's remarkable and valuable work. A careful reading of its pages will give a complete answer to the title of our essay.

7. THE REVOLUTION.

The organization and discipline of the armies of the Revolution were poor indeed; but it is remarkable that such a weak, loosely bound form of government, without money or resources, should have ever conducted the war to a successful issue. The few brilliant victories of Saratoga, Yorktown, Trenton, were set in years of disaster and distress. Mutinies, cowardice and failures to furnish money and troops were common occurrences. The weakness of the government may be illustrated by the fact that although 395,858 volunteers and militia were enrolled during the war, Washington was never able to get but a few thousand men together for a campaign. Twice Congress gave him dictatorial powers. Recognizing the uselessness of men called into service for a few months, he appealed again and again for a permanent force of even 10,000 troops. In his letter of August 20, 1780, to the President of Congress, he covers the story in his usual pungent manner:

Had we formed a permanent army in the beginning which by the continuance of the same men in service had been capable of discipline, we never should have had to retreat with a handful of men across the Delaware in 1776, trembling for the fate of America. * * * We should not have remained all of the succeeding winter at their mercy, with scarcely a sufficient body of men to mount ordinary guards * * * We should not have been under the necessity of fighting Brandywine with an unequal number of troops and

afterwards seeing Philadelphia fall a prey to the victorious army. * * * We should not have been at Valley Forge with less than half the number of the enemy, destitute of everything, in a situation neither to resist or retire. * * * We should not have found ourselves this Spring so weak as to be insulted by 5,000 men unable to protect our baggage and magazines. * * * We should not have been the greatest part of the war inferior to the enemy, indebted for our safety to their inactivity * * * and of seeing the country ravaged, our towns burnt, the inhabitants plundered, abused, murdered with impunity from the same cause. * * *

What a scathing arraignment of the short term system of volunteers and militia from the pen of our greatest soldier and statesman. There is nothing in our military history to indicate that this letter was ever read by statesmen of later days, or that the lessons of this war ever made any impression on our legislators.

The following are some of General Upton's deductions from a study of this war:

Nearly all of the dangers which threatened the cause of independence may be traced to the total inexperience of our statesmen in regard to military affairs which led to vital mistakes in army legislation.

As true to-day as it was in 1776.

In proportion as the general government gives the States authority to arm and equip troops it lessens the military strength of the whole people and correspondingly increases the national expenditures.

This was clearly indicated in the War of the Rebellion in the different methods used by the Union and the Confederacy in organizing their armies.

That when a nation attempts to combat disciplined troops with raw levies it must maintain an army of at least twice the size of that of the enemy and even then have no guarantee of success.

Amply demonstrated in the wars of the Revolution and 1812. At the first Bull Run it was doubtful which side would run first. A battalion of regulars covered the retreat.

That neither voluntary enlistment based on patriotism nor the bounty can be relied upon to supply men for the army during a prolonged war.

Washington wrote to the President of Congress: "There must be some other stimulus besides love of their country to make men fond of the service."

That short enlistments are destructive to discipline, constantly expose an army to disaster and inevitably prolong war with all its attendant dangers and expenses.

That short enlistments at the beginning of a war tend to disgust men with the service, and force the government to resort either to bounties or the draft.

We seem to have avoided this error in 1898. The volunteers were enlisted for "two years or during the war."

That regular troops engaged for the war are the only safe reliance of the government, and are in every point of view the best and most economical.

We have never been able to convince our legislators of this great truth.

That when a nation at war relies upon a system of regulars and volunteers, or regulars and militia, the men in the absence of compulsion or very strong inducements will invariably enlist in the organizations most lax in discipline.

That troops become reliable only in proportion as they are disciplined; that discipline is the fruit of long training and cannot be obtained without the existence of a good corps of officers.

Conclusively proven in every war up to and including 1898. The fatal expeditions of St. Clair and Harmer; the disgraceful acts of 1812 and Bull Run are ample proof that men, individually brave, massed in undisciplined bodies under inexperienced commanders, are often weak in courage and easily stampeded, becoming mere frightened animals seeking safety in flight.

A study of the errors and weaknesses in our military policy during the Revolution so clearly portrayed by General Upton, coupled with a search for efforts on the part of our government to rectify them, and to avoid the gaping pitfalls so plainly pointed out during the 125 years since that time, should disclose the probable course of our government in the organization and discipline of its armies in peace and in war.

The peace policy of our government in military affairs has continually re-echoed that following the Revolution. The army was reduced to 700 men, notwithstanding the fact that we had a frontier of 1500 miles dominated by powerful bands of Indians.

Harmer's Miami expedition against the Indians, composed of hastily gathered volunteers, added another page of disgrace and disaster to our military history, but nothing apparently to our wisdom, for St. Clair followed the next year with 1400 men, mostly volunteers. He met about an equal body of Indians, and was utterly routed, leaving 632 killed in the field and 264 wounded. It is possible that these disasters and the

cries of the settlers may have aroused Congress to some sense of its responsibility, for in 1792 it increased the army to 5387 of all arms. The Whisky Rebellion followed, and 15,000 militia were called out. Pennsylvania did not furnish her quota. We have had ample proof since that she can depend on her National Guard to preserve order within her borders.

In 1798 trouble with France seemed unavoidable. The President was authorized in the event of a declaration of war, or of actual invasion before the next session of Congress, to raise a force of 10,000 men to be officered by him, and to be enlisted for a term of three years. There was a gleam of intelligence in this act, although the force would have been entirely inadequate. Fortunately the war cloud passed. In 1799 it grew again, and authority was granted to increase the regulars to 40,000, and to raise 75,000 volunteers. This also proved to be unnecessary, but the evil of raising two kinds of troops at the same time seems not to have been known by Congress. Congress clings tenaciously to this policy of making the regulars just strong enough to hold the trained officers and prevent them from joining the volunteers where their experience would be most beneficial, but yet too weak to carry on the war. The last exhibition was in 1898.

The war scare having passed, the army was reduced in 1801 to 4051, and in 1802 to 2536.

War was again declared against Great Britain June 18, 1812. We have not space to repeat in detail a history of the legislation of that period. It followed that of the Continental Congress by relying on militia and short term volunteers, some being enlisted for one month, some for three months, and some for six months.

The history of that war on land furnishes the most disgraceful chapters in our military records. During this war 527,654 troops were called into service, yet 3000 British troops burned our capital almost without opposition. With the exception of New Orleans and Lundy's Lane, there was scarcely an action to our credit.

Had it not been for the naval victories at sea and on the Great Lakes, the safety of the nation would have been imperiled. The Secretary of War furnished the strategy until directed by the President to desist; then it was furnished by the Cabinet. The climax was reached when the Secretary of War took the field in person. He issued orders at his pleasure, completely

ignoring division and department commanders in communicating with their subordinates, inaugurating a vicious system which continued until 1817, when that intrepid soldier, General Jackson, after making several respectful protests to the President, and finding them unanswered, directed his subordinates "to obey no orders not received through him." This made an issue and stopped the practice until the Mexican War. Mr. Stanton revived it again in the War of the Rebellion.

The largest force of British regular troops in America in any one year of this war was 16,500, scattered from Quebec to Detroit, yet we never inflicted any serious damage on them, nor did we succeed in penetrating their country beyond a few miles. It is unpleasant to dwell upon. It shows conclusively that our government was, at that time, incapable of organizing an effective army, and as for discipline, the long list of mutinies, cowardly retreats and insubordination on the part of the volunteers and militia indicate that even the word discipline was unknown. All of the allegations made by General Upton in regard to the War of the Revolution are more than confirmed in this wretched war. One would think that this, coupled with the troubles of the Revolution, would have convinced Congress as to the futility of relying on militia and raw levies in time of war, but there is not the slightest indication that they ever gave it a thought. The war cost \$82,627,009, and \$45,186,197 in pensions. Tremendous amounts for those times, and a simple defensive war.

In the reorganization of the army after the war its strength was fixed at 10,000. The staff corps were reorganized on a better basis, but the injurious custom of appointing the staff from civilians without military knowledge or experience was retained.

The frontiers were threatened by large bodies of hostile Indians, and the want of a more effective military policy was soon to be felt in the Seminole War, which began in 1817. Hastily raised volunteers were again in order. The two most remarkable events, so far as organization was concerned, were: First, the act of General Gaines, who raised a force of 1600 Creek Indians, and appointed the officers, even to a brigadier-general, without a shadow of authority. Second, the act of General Jackson in disregarding the instructions of Congress by calling for volunteers from Tennessee, appointing the officers, and

mustering them into the service of the United States. It is difficult to determine just what ideas of the Constitution were in the minds of those gentlemen. Such acts did not tend to relieve the prejudice against standing armies, and in presenting his plan for reorganization in 1821, Secretary Calhoun said: "If our liberty should ever be endangered by the military power gaining the ascendancy, it will be from the necessity of making those mighty and irregular efforts to retrieve our affairs—*after a series of disasters caused by the want of military knowledge.*"

I believe this to be especially worthy of thought now. We are in more danger, from the *lack* of a competent regular force, than we shall ever be through it.

Mr. Calhoun submitted to Congress a plan which would have given us a fairly effective army organization. It provided for expansion—a wise provision in any system. It reorganized the staff corps, providing for the detail system somewhat on the lines of our present method. It had many good points, but Congress emasculated it and organized an army of 6316 infantry and artillery—no cavalry. It is difficult to imagine the workings of a mind that could vote for such a measure. A boundless frontier, with a tide of immigration pushing it on to the Pacific; thousands of defenseless families crying for protection from merciless savages, it seems to me that justice, and even amateur statesmanship, would urge consideration of the needs of the great West, and give to it the protection it so justly merited. If the entire 6316 had been cavalry it would hardly have been sufficient to guarantee peace to our pioneers. This policy was continued until the Black Hawk War, in 1832. A couple of good cavalry regiments could soon have brought it to a close, if not have prevented it altogether. The government was like a mountain in labor. Troops were marched from the Atlantic coast to Lake Michigan, only to be prevented by disease from going into the field. Finally the government called for 600 rangers. The war was over before they could be utilized, but they led to the organization of the dragoons.

The Florida War, which began in 1835, found the government in the usual plight—totally unprepared in troops and supplies. The aggregate of the army was 7198, scattered throughout the Union. The war began with the massacre of Dade and his command, which was but an incident in a shame-

ful policy begun after the Revolution, and continued until the last chapter was furnished by Custer and his command.

The Indian wars show that throughout our history it has been impossible to get Congress even to create a sufficient force to guard the growth of our country.

The President authorized Generals Clinch and Eustis to call on the governors of South Carolina, Georgia and Alabama for such militia as they might need—later he revoked this authority and redelegated it to General Scott. The militia was to be called out for not to exceed three months. Three months was the usual limit placed on wars from the Revolution to the first call in 1861. General Gaines appeared again and took another fall out of the Constitution. He called on the governor of Louisiana for militia and got them. The governors were complacent in those days. With a mixed force of regulars and militia he sailed for Tampa, landed, and began a campaign of his own liking.

In 1836 the President was authorized to call for 10,000 volunteers for six or twelve months, unless sooner discharged. The organization was entirely under control of the governors. They were, of course, utterly without arms, clothing or rations for these troops. The training and discipline of the troops may be easily imagined.

The Creek War was but a repetition of former ones; 11,737 men were employed, of which 10,540 were short termed volunteers and militia. The efficiency and discipline were as usual.

General Zachary Taylor reported that Gentry's troops broke and ran, and could not again be brought into action as a body, whereupon the legislature of Missouri characterized General Taylor's report "intentionally false," and the conduct of their men that of "good and brave troops."

In 1838 a third war with Great Britain was happily averted. Having but 3000 men on the Canadian frontier, and as usual, no preparation for supplying and equipping an army, General Scott was sent through the West with authority to call on the governors of the border States for such militia as he might need. Peace prevailed, and the Regular Army was fixed at 8613 men.

The safety and freedom of a country with such a military policy is due solely to the watchful care of Providence.

It was evident after the admission of Texas in 1845 that a war with Mexico was not to be avoided, in fact, was desired

by the administration. The time for preparation was ample, and a force of 15,000 regulars under Scott and Taylor could have marched to the city of Mexico. Following the usual custom General Taylor was sent to Texas with between 3000 and 4000 men with authority to call upon the governors of Alabama, Louisiana and Mississippi for such volunteers as he might need. Before the close of the war it included nearly every State in the Union. With ample time for preparation the government followed its usual policy and sent Taylor's little army of 3000 against the entire strength of Mexico on the Rio Grande; just as in 1898 it sent almost the entire strength of the Regular Army against a greatly superior force at Santiago in a defensive position. That a small force should land on a hostile coast between two hostile forces much larger than itself and be successful is not due to good judgment, but to the unexpected weakness of the enemy.

General officers were appointed from among the politicians, such as Shields, Pillow, Caleb Cushing, Franklin Pierce and others. They were totally without military experience. Fortunately the war was not a great nor a difficult one, and Scott, Taylor and Wool were officers with long service, and the junior officers were to a great extent graduates of the Military Academy, destined later to win world-wide fame as commanders.

The troops employed during the war were distributed as follows: Regulars 31,024, militia 12,601, volunteers and rangers 60,659. The proportion of militia was small; it might be assumed as due to the discovery by Congress that unorganized and undisciplined State levies were valueless for war purposes. There was also some encouragement to believe that a rational military policy was acquiring a foothold in the minds of our legislators, from the fact that the President was authorized to call for 50,000 volunteers for *twelve months, or during the war*.

The sick list was very large, due to the presence of colonels and general officers who were ignorant of camp sanitation, and the discipline necessary to enforce it. Repeated in 1861-65 and 1898.

At the close of the Mexican War the Regular Army was promptly reduced to 10,320 aggregate. In 1860, on the eve of a gigantic war, the Regular Army consisted of 18,093 officers and men scattered over 3,000,000 square miles. The staff was totally inadequate; there was no system of ex-

pansion, and when Sumter was fired on there was no law in the statutes by which any other troops could be called into service.

A discussion of the strategy or tactics of this war is not germane to the subject, except in so far as they may have affected the discipline and organization of the troops, and in criticizing the actions of officials we are not in the least impugning the patriotism and devotion of the able men who guided the Ship of State through that terrible storm. The greatest mistakes were due to lack of discrimination between political and military necessities, lack of knowledge of military methods, impatience with the slow progress of events, and faith in their own knowledge of strategy—military and naval.

The lobbies were thick with people who traveled long distances to give their advice to the President, to the Secretary of War or to Congress on the conduct of the war, while the States, jealous of their supposed rights, were constantly clamoring for more consideration. The joint committees of Congress on the conduct of the war were encouraging subordinates to appear before them to divulge the plans of campaign and to openly criticize their superiors, officially and personally. All of these acts were speedily reported to the Confederate authorities by spies, or were made public by the gossiping habits of the members themselves. The arbitrary acts of the Secretary of War were often unjust. The lack of a competent commander-in-chief until the masterful genius of the great commander forced his elevation to supreme command; the formation of a council in the War Department composed of the adjutant-general, heads of bureaus, the Secretary of War (all being non-combatants), and Generals Halleck and Hitchcock were some of the serious obstacles to a speedy and economical conduct of the war. They are, I believe, peculiar to our government, and I have not the least doubt that they will be repeated in any future great war in which we may be engaged. The advance guard was seen in 1898.

President Lincoln's first call was on the militia of the District of Columbia for the companies for three months. It seems incredible at this day that any public man should have so misjudged the temper and determination of the South, and to have believed it possible to suppress the flames of insurrection in three months, and that any student of his-

tory should believe it possible to raise an efficient army and conduct a campaign in that time.

The District of Columbia was full of disloyal people, and many of the militia refused to serve outside of the District.

The President's next call was for 75,000 militia for the usual *three months*. They were of little or no use to the country, and had not acquired the rudiments of soldiering before the time of their enlistment expired. Some of them remained long enough to fly ignominiously, at Bull Run, from troops as raw as themselves.

The governors of the border and Southern States refused to honor the call, in some cases even without assembling the legislatures. Delaware also disputed the right of the President to order them into the service of the United States. Fortunately she was so unimportant, save to herself, that her action did not influence other States. Congress was not in session, but Mr. Lincoln was equal to the occasion and did not shrink from the responsibility of usurping its powers, trusting to its approval later. Grave questions commanded the attention of the President and the organization of this little army was turned over to Mr. Chase, Secretary of the Treasury. Fortunately three regular officers of experience were detailed to assist him. They succeeded in having future calls made for three years, but could not succeed in keeping the appointment of officers in the hands of the President. Mr. Chase and Mr. Lincoln preferred to leave them to the States with all the attendant evils of elections of officers and State politics. This also prevented regular officers from getting volunteer appointments to places where they might have been of great importance in teaching and disciplining the raw recruits. This was also true of 1898. It was almost impossible for a regular officer to get a field-officer's commission in the volunteers in his own State, as there was little or no National Guard in 1861. The regimental officers were almost without exception totally ignorant of any of a soldier's duties in camp or in the field.

Men who had never worn a uniform were appointed to the command of brigades and divisions, and the responsibility for the lives of thousands of our countrymen. The country paid dearly for the education of these generals. General Scott was old and infirm. There was no method of retiring incapacitated officers, and in a crisis the army was left without

a leader. The President and Secretary of War were devoid of military knowledge, and of necessity relied largely on the advice of staff-officers who were in Washington. General Halleck was later brought to Washington as nominal Commander-in-Chief, but the selection was a poor one, as he had never been a successful commander in the field and did not have the confidence of the army. The President also selected General Hitchcock as military adviser. He was superannuated and added more to the confusion of ideas than to the disentanglement of critical situations.

All of these difficulties were reflected in the organization, discipline and reverses of the armies. They are inherent in our government.

The organization of the staff corps had been neglected and they were totally inadequate for the work.

The departments requiring business ability rather than military ability were quickly organized and became efficient, but the adjutant-general's and inspector-general's corps in which experience and a high order of military training were necessary, remained crippled during the war.

By the time Congress met in July, 1861, the President had called out nearly a quarter of a million of men. Congress promptly ratified his action, authorized him to increase it to a half a million, and at the same session removed all restrictions as to numbers.

The appointments of the regimental officers were left to the governors of the States. When vacancies occurred the company officers were to be elected by the men, and the field-officers were to be elected by the commissioned officers of the regiment. A general commanding a separate army or department might order a commission of not less than three nor more than five officers to report upon the efficiency of any volunteer officer reported to it. If the report was adverse to and was approved by the President the officer's commission was vacated. This was revived in 1898 and was a powerful aid to efficiency and discipline with colonels from the Regular Army who had the courage to use it, but it was rarely exercised by colonels appointed by the governors.

It will be sufficient here to note some of the effects of our system of government on the movements of the Army of the Potomac. Due to its proximity to Washington it felt the brunt of the burden of political interference and military

mismanagement. Its movements were most frequently subordinated to the President's fears for the safety of the capital. He did not learn until Grant taught him that the best way to preserve the capital was to keep Lee's army busy protecting its own.

General McClellan was appointed Commander-in-Chief August, 1861, but on March 1, 1862, on the eve of operations of great importance, the country was divided into three departments, and the department commanders were ordered to report directly to the Secretary of War, ignoring the newly appointed Commander-in-Chief before he had struck a blow. The reason assigned being that "he had taken the field." Certainly a novel reason for ignoring a General-in-Chief in the movements of his troops.

The President had a plan of campaign of his own based on protecting Washington, but reluctantly accepted McClellan's. The latter set about reorganizing, drilling and disciplining his army which was sadly in need of it, but political necessities were demanding a victory or a victim and McClellan was pushed out to the Peninsular Campaign. It might have been well if he had been left to his own devices and been given the troops he was promised, but he had no sooner begun his movements than he was subjected to a series of orders and counter orders, suggestions from Stanton and Halleck and the President even as to plans of campaign. Departments were organized, limiting his sphere of command, detaching troops from his army, and subordinating his campaign to the safety of Washington.

"Department commanders were ordered to report directly to the Secretary of War, who could give such orders as he chose without consulting the President". (Upton) The demoralizing effect of these acts on the military commanders was necessarily very great. It was natural under this condition of things that officers of influence should seek the aid of politicians to gain what should have come to them properly in the course of military administration. Mr. Lincoln admitted that he was powerless to overcome the political pressure. Unity of command was entirely lost and concentration of troops for a decisive blow became impossible. Jealousies sprung up between officers of high rank and harmony of action was out of the question. It is remarkable that any successes were achieved under such demoralizing conditions.

McClellan had some faults, but up to that time he had displayed more skill than any other general in the Army of the Potomac, and if he had received proper support and had been permitted to exercise the proper powers of a commander-in-chief untrammelled by the pernicious interference of the Secretary of War he might have marched to Richmond.

After many months marked by failures, the President relieved him from command and appointed Burnside who demonstrated his unfitness in short order, to be followed by Hooker who was soon down and out. The organization of the army at this time is aptly described by General Upton in his examination of the conduct of McClellan. "At the time of his appointment the fate of the nation seemed to depend upon this single individual. In the organization of his army he stood alone. None of his brigade, division or corps commanders had ever seen service as such. None of them as in Europe had exercised command at maneuvers or had been practiced in handling large bodies of troops. The colonels from whom the brigadiers were mostly to come were nearly all from civil life with but little knowledge of tactics and no standard of discipline by which to gauge the proficiency of their troops. A difficulty of nearly equal magnitude confronted him in the staff. The Adjutant-General's Department from want of interchangeability with the line could not as in European services furnish competent chiefs of staff to himself or to any of his corps or division commanders. The adjutants-general were scribes * * * the aides-de-camp had no higher conception of duty than the accurate delivery of orders. To most of the generals and their staffs the act of conducting and directing troops was a sealed book to be opened and studied as the campaign progressed."

This was the condition of the army a year after war was declared. Similar conditions existed in 1898. With the exception of General Wheeler none of the generals in command of brigades and divisions at Santiago had ever commanded so many troops before; those with war service having been enlisted men or company officers during the Rebellion.

On July 1, 1862 President Lincoln called for 300,000 additional troops, and suggested to the governors that they should be *largely composed of infantry*. Some of the States desired to raise cavalry and did so at their pleasure without consideration of the needs of the country.

In 1898, instead of increasing the regular cavalry, the government authorized the organization of volunteer regiments in the West; they were officered by inexperienced men and expensively but poorly mounted. They were mustered out without having fired a shot and rendered no service except two squadrons of the First Volunteer Cavalry which participated in the Battle of Santiago. None of them were comparable to the regular cavalry in efficiency or discipline.

In McClellan's case, there was no one of equal ability in evidence.

The greatest peril to the cause and to the army arose from the "political necessities" of the States at elections. So many voters were absent that success at the polls was imperilled. Through the importunities of the governors and the acquiescence of the Federal authorities, State hospitals were established throughout the Union. State agents were appointed to visit the hospitals at the front and to bring back all the sick. The sick were placed under the command of the surgeons, and once in the hospital a soldier passed beyond the command of his proper officers. Some of the State agents even followed armies to the front in their efforts to get men away from their commands. Boats and trains were sent by the States to transport the sick to the embarrassment of supplies and troops going to the front. Once in the State hospitals it was an easy transfer to their homes, from whence but few returned to the ranks. Nearly 300,000 men were thus absent at one time. Thousands deserted. It was impossible for the United States government to arrest and punish them, and the States gave little or no assistance. Discharges on surgeons' certificates of disability reached the number of 291,367. They formed the first grand army of pensioners.

This was repeated to a less degree in 1898. In this case the troops had not fired a shot, nor had they passed beyond camps in our own country. Fearing the political effect of so much sickness, the administration gave the surgeons unlimited authority, and men once admitted to the general hospital could get sick furloughs with transportation to any place they called home without the knowledge of their regimental commanders. In both cases this weakness led to grave abuses and much dishonesty. One can imagine the discouraging and demoralizing effect of this vicious course on officers and

men who were bravely doing their duty at the front. The war with Spain was practically over before the nefarious scheme was put into operation.

Washington discovered that "there must be some other stimulus besides love of their country to make men fond of the service." Patriotism and partisanship did not suffice to provide enough troops for the great armies of the Union and drafts had to be inaugurated. Again we had to depend on the States for the execution of the law. The drafted soldier is an unwilling one, ready to adopt any line of conduct that will lead to his discharge. If he had the means he could purchase a substitute. The draft failed to produce the number of men necessary to recruit the armies.

Bounties were the next resort with all their attendant evils. Thousands of dollars were collected by individuals who never saw the front. I doubt if the "bounty jumper" could have originated under any other form of government. It would be interesting to know how many of them reached the pension rolls.

A system of compulsory military service would eradicate these evils at once; without it we have no recourse but to suffer them should large armies become necessary. In these respects the European powers have every advantage, and with equal wealth and population they would have a tremendous lead over us in effective organization and discipline.

State politics injected another crying evil into the organization of the Union armies by the continual raising of new regiments instead of building up depleted ones at the front. There is no better system of raising an army than to increase skeleton regiments already organized and efficiently officered. The insuperable objection to this method in our government, is that it carries no political patronage. If the Spaniards had made the resistance in Cuba that was expected, we should have had to raise an army of 500,000 men, and most of the errors and evils of 1861-65 would have been repeated. We duplicated as many as possible under the circumstances. The State volunteers were not quite as bad, for many of the officers had served in the National Guard and had some military experience, and in the second call the War Department managed to get the expansion idea carried out partially. Again, every man who was enlisted in 1898 was physically examined, and his physical condition made record of on the muster-in roll.

He was also re-examined before mustered out, and the result was noted on the roll as well as the record of his illnesses during service.

In the early years of the War of the Rebellion thousands of men were enlisted who never passed beyond the first camp. They were physically weak and totally unfit for soldiers. They drew pensions for many years.

In 1861 many bodies of troops were organized months before they received any recognition from the general government. When General McClellan was first appointed Commander-in-Chief he wrote to General Halleck, of St. Louis, as follows: "You will find in your department *many general and staff-officers holding illegal commissions* and appointments not recognized or approved by the Secretary of War or the President. You will please at once inform these of the nullity of their appointment, and see that no pay or allowances are issued to them, until such time as commissions may be authorized by the President or Secretary of War." General Cullum of Halleck's staff, wrote: "No sooner had Halleck assumed command than the fraudulent contracts were annulled; useless stipendiaries were dismissed. A colossal staff hierarchy with more title than brain or military capacity was disbanded, and composite organizations were pruned to uniformity."

Halleck and McClellan ranked high among the officers of their time in knowledge of military art and science. Both knew that the very first requisites for success were good organization and discipline. Halleck was a theorist, and a failure in practice. McClellan was unable to allay the impatience of Stanton and the President, or to satisfy the nervous hunger of the people for a victory at any cost, but he undoubtedly laid the foundation of that Grand Army of the Potomac, whose deeds under other and greater commanders brought great luster and renown to our heroic soldiers.

We never had a civilian Secretary of War who understood the foundation principles of army organization, the science of command, the relations between officers and men necessary to discipline, or who would concede to a commanding general the full rights and powers of his office.

General Scott, after the Mexican War, was subjected to great mortification because he attempted to discipline some of his officers who were sadly in need of it. He had already

been a candidate for high political honors, which was sufficient to warrant scanty consideration from the representatives of another party when it came to a question of disciplining officers of their faith.

President Davis, of the Confederacy realized that their armies must be national and not State troops, and with the exception of election to the lowest grades, all appointments and promotions were made by the President and confirmed by the Senate. In her conscription laws she claimed that every citizen owed military service and took measure to enforce it. The conscription law of April, 1862, read: "That the President be, and he is hereby, authorized to call out and to place in the military service of the Confederate States *for three years*, unless the war shall have been sooner ended, *all white men who are residents of the Confederate States, between the ages of eighteen and thirty-five years*, at the time the call or calls may be made, who are not legally exempt from military service. All of the persons aforesaid who are now in the armies of the Confederacy, and whose term of service will expire before the end of the war, shall be continued in the service for three years from the date of their original enlistment." A drastic measure for a confederation of States. But the Confederate Congress realized that the full strength of the South alone stood any chance of success, and they did not hesitate to give their President authority to call it out and organize it into a national force. The Confederate conscription was successful—the Federal draft was unsuccessful.

Many military adventurers from abroad sought service in the United States. As the governors of the States held all regimental appointments, Secretary Stanton appealed to them to appoint some of these wandering knights—"for fear the Confederacy might secure their services."

In 1863 light broke through the darkness which was stifling the Union; Gettysburg and Vicksburg were beacons of hope. Competent commanders were making their way to the front through the mediocrity in the ruck, and two years of severe work had made veteran soldiers of the raw levies. The blood and treasure spent in those two years were in payment of the bill for unpreparedness in '61. We have always had to pay that bill in similar coin in each war. Our government is opposed to paying insurance, what is the use. Goldwin Smith says of our democracy: "It has pretty well performed the

destructive part of its task; the constructive part remains to be performed." The last clause is certainly true, so far as our military strength is concerned.

The beginning of the end came in 1864. The great chief had been slowly, but irresistibly forging his way to the front, so that even the "Aulic Council" at Washington could not successfully deny his claims. After three years of desperate fighting in the field a commander had risen, and had forced himself by victories won into supreme command. The "Aulic Council" adjourned *sine die*. The military advisers were no longer of use. Cabinet strategy was laid away. Washington still trembled whenever a Confederate battalion moved north. But unperturbed and confident the new chief adhered to his simple strategy of "finding the enemy wherever he might be, and beating him."

The close of the war found a great army to be mustered out and a regular army to be cut down and reorganized. Many officers of high rank had been out of the service when war was declared, and hosts of volunteers who had never been in it before were anxious for commissions. The power of the States again became manifest. So many vacancies of each grade were assigned to each State to be battled for by State politicians. I recall one distinguished soldier who applied for a lieutenancy but there were no vacancies in that grade belonging to his State, but just then some one declined a lieutenant-colonelcy; the applicant was told that he could have that *if it would do just as well as a lieutenancy*. The army was reduced to 45,000 men. Many worthless officers had been appointed under this political system. They had to be gotten rid of arbitrarily. The "Benzine Board" accomplished this task in a Spartan-like manner, but not without grave injustice to many who had no political influence. After this reduction to 25,000 men was soon made, and the Spanish-American War found us in the same condition as in 1861. No army, no supplies. Plenty of hasty legislation, prodigal appropriations of money, abundant egotism, and Yankee confidence in our ability to thrash anything or anybody. None nor all of these could furnish the three or four good infantry corps we needed so badly, nor complete the seacoast fortifications that were without guns, nor supply the guns already mounted with a few rounds of ammunition. Providence again saved us. Our enemy was a cripple, and a few

thousand fine regular troops ended the war, while the raw levies were sweltering in torrid camps without enough discipline to keep them in a sanitary condition, and the administration was having night sweats over the political effect on the country, until it relieved itself by harking back to the evils of the Rebellion. The Regular Army was increased of course when it was too late, and the infantry was given the three battalion organization too late. Nearly 250,000 volunteers were raised and concentrated in camps. There was neither clothing, canvas nor proper arms and ammunition for them. They were mustered out without having fired a shot. The expense account for that little war was about \$250,000 000, plus pensions.

One improvement was noticeable over the Revolutionary times. The call was for two years, or during the war. The regimental officers were as usual appointed by the governors. There was one good feature of this. It kept all of the applicants for places in the State troops and their friends within their States instead of throwing them into Washington to add to the congested condition of the White House and the War Department. There were some rank political appointments of civilians. As a rule they were put in the staff corps where they could do the most damage. One valuable lesson was learned, viz.: that United States Volunteers raised in specified territory, commanded by regular officers, and with the regimental officers appointed by the President, reached a high state of efficiency in a short time.

The Spanish-American War (if you can call one combat and two naval actions a war) flashed in the pan. The 250,000 volunteers were mustered out after a few months' service.

Financially the war was conducted in an extravagant and wasteful manner inherent in our method, which is absolute neglect in time of peace, purchase at any price in war. It is doubtful if in any war in history so much "rank" was made in so short a time and in so little action. It is an undoubted fact that the promotions and appointments made incident to this war seriously affected the morale and discipline of the commissioned strength of the army.

The first naval action promoted the commander to admiral of the navy for life, thereby barring an equal reward to others, no matter how brilliant their records might become.

Great emotional, political or personal rewards may be

generous, but where they deprive others equally able who have served longer of chances for further advancement, which is the soldier's Mecca, they are injurious to the morale of an army.

II. "HOW CAN ITS INFLUENCE BE MOST EFFECTUALLY UTILIZED?"

I take this to mean: How can we most effectually utilize our particular democracy in the organization and discipline of our armies? Before considering the positive side of the argument, we may eliminate those things which we feel sure our people will not countenance.

1. Compulsory service in time of peace is distasteful to the masses, and believed to be inimical to the liberties of a free people, and may not be considered.

2. A *large* standing army is also said to be dangerous to our liberties, and as this statement has been repeated diligently on the stump and in the press since 1775, it has grown into the crevices in our foundation and cannot be eradicated. It is possible we might convince our people that as we are now a very large country we might increase our standing army and still have it *relatively* a small one. Our longitude has expanded to 175° and they might understand that it requires more men to patrol it. I do not expect to see any increase in the Regular Army until a public sentiment is created for it through some disaster to our country.

Many beautiful schemes have been originated for organizing the forces of our country, and the General Staff of the army is formulating plans for a national reserve. All are excellent on paper, but they are rendered innocuous by two obstacles. First, not the resistance, but indifference, of Congress and of the States. This lethargy is not peculiar to the form of government (the French Republic finds itself able to maintain a large standing army), but rather to our traditions, and the sense of security engendered by our great strength. Until we have justifiable reasons for doubting this security we may not expect much activity or enthusiasm in military affairs.

The second great obstacle to the proper organization of our military strength, either for defense or conquest, is—

SELF-CONFIDENCE.

Mr. Bryce says "the tendency of democracies is to beget self-confidence." Lulled to sleep in fancied security, confi-

dent that our great wealth and numbers have made us unconquerable, our energies are devoted to trade and the arts of peace, and we have no time to devote to the consideration of possible disasters based simply on speculation. When the storm breaks we shall rush to hasty and ill-digested action, extravagance and political jobbing. Our troops will be raw levies with all the confusion and misfortunes incident thereto. We shall finally be successful; we will pay the cost, disband our armies and resume our money getting. The bruises will soon heal and be forgotten. How can we either reason or frighten such a people into serious consideration of the words of Washington "in time of peace prepare for war."

Let us select if we can from the brief summary of our military history the salient features which have by custom or sanction of law become engrafted into our governmental creed, and which will in the future, as they have in the past, dominate our military policy.

MILITIA.

The Constitution announces that "a well-regulated militia being necessary to the security of a free people," etc. This was inserted in our Constitution just after a long bitter struggle in which it had been demonstrated that the militia was hopelessly unreliable and practically valueless in war. Washington, Greene, Gates, Lee and others tried in every way to impress this upon the Continental Congress, but without success, and at the close of the struggle the statesmen of the day with such revered names as Hamilton, Jefferson, Madison and Monroe, announced that the safety of the country depended on a "well-regulated militia."

It is a great truth. What has any country to offer in her defense better than the brawn of her able-bodied men between the ages of eighteen and forty-five? The weakness of the proposition lies in the total failure of our law makers to interpret the meaning of the word "well-regulated," and an utter neglect to provide an adequate system of organization and training for this great body of men. Wars came and went, but their lessons were lightly cast aside. We are still relying upon the militia, still harboring that distrust of an effective regular force, which prohibits it from ever becoming strong enough for war.

The present "Dick Bill" was a short step toward organizing some of our military strength. We were at war when it passed; a powerful party was in office, the country was having boundless prosperity, and yet this bill was passed by a small majority only. It appropriated but two millions of dollars to be distributed through the entire organized militia of the United States, and would not extend the time of service of the militia when called out by the President beyond nine months. It indicates a volunteer force to be organized and officered by the President, but provides no method of making it effective. The effort to induce National Guard officers to take examinations for commissions in the volunteer forces in time of war is a failure. It is not attractive. They know they will fare better with their States.

THE STATES.

That a State may not secede has been definitely settled, but there are many other "rights" held by the States which prevent us from becoming a centralized strong nation for war purposes. We can still remember the disgust of our sick soldiers returning from Cuba, when they were prevented from landing in their own country because the quarantine laws of a petty State were stronger than the United States.

Any administration desiring war would assure itself of the popular desire first, for should any considerable portion of the country be opposed to it, the States could readily refuse or neglect to assist in raising troops.

This question of powers to be left to the States, and those to be transferred to the general government was one of great interest and strenuous partisanship at the formation of our Constitution. I am not disputing the wisdom of the framers of that marvelous work, but for military purposes it left us weak and eminently prepared to remain at perpetual peace.

"It is not too much to say that the period of five years following the peace of 1783 was the most critical moment in all the history of the American people—even more critical than from '61 to '65." (John Fiske in "The Critical Period of American History.")

In view of the fears and jealousies of each other, their bitter experiences in the war, and their animosities against military governments, it is not remarkable that the States should have reserved to themselves the appointment of the

officers of militia. It is rather surprising that they surrendered so much. Custom since the Revolution has added the organizing and officering of the volunteers to their diadem of powers, thereby yoking State and Nation together. When they move in harmony they sweep all before them; should any considerable number become obstinate the movement must be arrested. In a vote for the surrender of these powers Nevada is as strong as New York. A beautiful fiction in a "pure democracy." We may recall that the great Washington wrote to the governors after disbanding the army: "It is yet to be decided whether the Revolution must ultimately be considered as a blessing or a curse. * * * There are four things which I humbly conceive are essential to the well-being I may even venture to say to the existence, of the United States as an independent power. * * * (3) The adoption of a proper peace establishment," but the words fell on rocky ground.

The grand promise of equal rights to all has attracted to our shores the down-trodden and oppressed of the world, until we have millions of citizens with but a veneering of attachment for the great democracy which has promised them so much. Would they be an element of weakness in war against their countries? I need only ask, How long would you have to reside in Germany to willingly bear arms for her against the United States?

Bearing in mind General Upton's statement "That when a nation attempts to combat disciplined troops with raw levies it must maintain an army of at least twice the size of that of the enemy, and even then have no guarantee of success," and coupling with it the great length of our coast and border we may have to defend, we must conclude that should we become involved in war with a first-class power we shall need enormous armies. How can we arouse our government to the necessity for preparation, and how far will Congress go in granting the means?"

Sir Robert Peel said that "Instead of wasting the resources of a country to maintain great armies and navies, the sensible nation in future will rely upon its own latent energies. In a future war, on the field of battle, instead of professional soldiers, will appear whole peoples, with all their peculiar motives and failings."

Sir Robert might readily have drawn this conclusion from a

study of our military policy. It is a nice question of national economy. Is constant preparation cheaper than neglect? An army of 100,000 men would cost us \$100,000,000 per year. If wars are to come but once in thirty years neglect will be the cheaper. But who can tell the future of war?

However, the "latent strength" idea is popular with our people.

I am going to suggest a scheme which is friendly to our Constitution and traditions, and while it may not arouse any enthusiasm among our people it will not provoke antagonisms, and must certainly appeal to Congress as reasonable and economical for a nation posing as a great world power with weak colonies, and a growing tendency to regulate the affairs of its neighbors.

1. A small regular army kept in the highest state of efficiency by sufficient pay to entice good men to enter, and promotion laws which shall keep the officers young enough to do their duty at any time. I place 75,000 as the inferior limit. We must remember that we have to keep about 15,000 in the Philippines, and that they would have to be sacrificed in a war with a first-class naval power like England, France, Germany, or Japan. The Islands are without effective fortifications, and our naval force there would be fortunate to reach San Francisco in safety.

This army should be organized on the expansion principle: fifty regiments of infantry of 600 men each—fifty men to the company—could readily be expanded to 1800 men to the regiment. Leaving out the eight Philippine regiments, we should then have 75,000 infantry at once. The cavalry should be kept on a war footing. Its present strength and organization will probably answer all demands. The field-artillery should be at least 100 batteries of four guns each, and 125 men each. We should have 100 more batteries in the militia of the various States, and 500 guns in the depots as a last reserve. I am not impressed by the great demands of the coast artillery. Ships have a wholesome dread of fortifications. This has been recently demonstrated at Santiago and Port Arthur. Twelve thousand men for the heavy artillery in time of peace to be expanded into 30,000 in time of war ought to be ample for the first line, and give us time to get out of a larger number.

This would leave 5500 men in our peace organization distributed among the staff corps, engineers, ordnance, signal

and hospital corps. They could be expanded at pleasure. We should have but little trouble then in raising 75,000 infantry, 15,000 cavalry, 12,500 field-artillery, 30,000 coast artillery, 12,000 staff corps, or about 150,000 men, provided we arrange for

A REGULAR ARMY RESERVE,

consisting of discharged soldiers of good character, who, in return for certain pay, and in fear of serious punishment for failure will agree to return to service in time of war.

We discharge annually about 20,000 men. Considering 15,000 of these of good character, and in good physical condition, and remembering that between the ages of thirty-three and forty-three the yearly death rate is about one per cent., and physical disability from sickness and accident two per cent., we should have at least 70,000 men fit for service at the end of the first eight years after the act goes into effect, and each five years thereafter.

To secure these men the terms must be placed in the enlistment contract, and pay and punishment must be stipulated. Five years will be long enough for the contract to run, and five dollars per month enough to pay after discharge from serving with the colors. At the end of the five years after the first man is discharged under this system, the government will be paying \$4,200,000 for 70,000 reserved men. If we subtract from that the expense of raising 70,000 volunteers and the difference in pensions, we will find that we are paying very little for that number of trained and experienced men. Details are great space consumers, and I cannot venture on them, but the terms of contract and conditions imposed can easily be agreed upon.

SECOND LINE.

The second line must consist of the organized militia and its reserve. We have at present 115,000 organized militia with various degrees of efficiency. What percentage of these would fail to pass the examining surgeons for muster into the service of the United States is not known. In the haste which will probably be necessary we shall be glad to take all of them.

The organized militia is largely supported by the generosity of the members, either in time or money or both. It is kept together entirely by their patriotism and military spirit.

The difficulty in getting recruits is due to the expense of serving. If the States and the United States would be more liberal in their appropriations so as to pay all of the expenses of the officers and men and give them more pay for time actually on duty there would be no difficulty in organizing 200,000 "well-regulated militia" on an expansion scheme, which would increase it to 300,000 in time of war. Small companies are the rule. They could easily be increased one-half, and in most cases could be doubled.

I am not to be understood as implying that these troops will be good soldiers at once, but am advancing this scheme as the most feasible one for our government to organize a body of troops quickly, leaving to the States the powers they will undoubtedly demand.

The creation of the necessary reserves in the organized militia must be left to the States. The best method will be to induce the men after having served one enlistment in the militia to pass to the reserve list in return for certain exemptions, such as relief from jury duty, poll and road taxes, and to pay them a fixed amount for each drill and target-practice they attend. Each company should keep its own reserve list, and should aim to keep the sum of its active and reserve strengths equal to the war strength. Each reserve man should retain his clothing and equipments, to be kept in the company armory.

As the militia companies have, as a rule, special social and fraternal associations the reserve men would probably be glad to retain official connection with them. The spirit of comradeship is strong in our people and thousands of our young men have volunteered for this reason.

The cost would be \$75,000,000 for the Regular Army, \$4,200,000 for the Reserve, \$10,000,000 for the organized Militia, or \$89,200,000 in all.

Congress must decide upon the advisability of maintaining such an organization. Military legislation fluctuates with the condition of the Treasury and it is useless to expect liberal appropriations during a deficit. We should, however, begin at once to create a public sentiment for the proper protection of our country through the public press and the service journals and at proper opportunities for conversation with men of influence throughout the country. The outlook for favorable military legislation during this decade is not promising. Serious questions are arising, upon the solution of which our

great experiment in self-government must stand or fall. After forty years of effort to substantiate our claim that all men must be equal in the pursuit of life, liberty and happiness, we are forced to admit that we have failed, and are now drifting on a turbulent ocean with no land in sight. Labor and capital are as much apart as ever, and the greed of corporations and trusts is concentrating the wealth of the country in the hands of a few. The socialist vote grew from 60,000 in 1900 to 600,000 in 1904. There is work and fame ahead for the statesmen who can adjust these questions and keep us in the simple paths of our forefathers, proving to the world that there is still courage and virtue enough in our people to govern themselves in a pure democracy. We are also assuming the rôle of peacemaker and arbiter in the affairs of other nations, which lends material to those who preach the end of wars. We offer an asylum to the wanderers of every nationality in the world. Some come to escape military service at home, and would probably add their influence and votes to the opposition. A great many of our people would oppose any substantial increase in our military organization. The masses are indifferent. Labor organizations are not friendly to the militia, and political parties cater to their wishes to obtain their votes. The Democratic party promised a reduction of the Regular Army in a plank of its platform. Whether this promise was sincere or a mere bait for votes matters little as its influence is against us in either case and would have to be combated. The lessons taught by the Spanish-American War have been almost if not entirely forgotten. In this we are simply repeating the story of past wars.

"The majority having the whole power of the community may employ all that power in making laws and in executing those laws and then the form of government is a perfect democracy."—Locke.

The majority in our government rarely expresses its wishes in reference to the military establishment until war is upon us.

Its platform is devoted to questions of finance and revenue. It may elect the President and fail to secure both Houses of Congress. It is not, therefore, a perfect democracy under Locke's definition.

On questions of interior economy and politics our legislature might be hopelessly divided, but in the event of foreign attack it will be firmly united.

"We've got the men and we've got the money too," and the safety of our great democracy is assured in the end. At present the "latent strength" scheme seems to be uppermost in the minds of our people, and will probably retain the ascendancy until some strong foe shall teach us that a well-organized and disciplined army is the best guaranty of peace, and the cheapest insurance against the extravagance and the horrors of war.

Our people have not learned that there is an art of war—a military science—quite as complicated as some other sciences, which has been sifted from the wars of mankind since Cain slew his brother, and which can be learned only by study and experience. They are nursing the fallacious belief that we inherit this knowledge, and that any American, be he lawyer, doctor or politician can command men as soon as he dons a uniform.

Men who would not think of taking their watches to a blacksmith for repairs, or their sick to a tailor for treatment, complacently, yea, enthusiastically, send their sons and brothers to death under officers utterly ignorant of war and of the care of men in camp and in the field, and worst of all, the men selected for such commands accept them knowing that they are perfectly incompetent to administer them, and the hospitals soon bear gruesome testimony to their incompetency.

Never have we had at the outbreak of any war a well-organized and disciplined army.

The little army that went to Cuba was splendid in every way, but it was only a corps making a diversion to gain time for the great untrained army at home to get a little knowledge and discipline.

While our people retain their present characteristics, content and confident that the future will bring us no foes we cannot overcome with our vast resources; while they are willing to allow political considerations to outweigh efficiency, and indifference to take the place of patriotic activity, we shall not have properly organized and disciplined armies for war.

Our patriotism is largely of the lip. That true patriotism which regards the country as the home to be cherished and protected within and from without, even at personal sacrifice, is not as common as it should be. It is constantly being

diluted by the accession of foreigners who are pleased to style themselves German-Americans or Irish-Americans, as though they desired to serve two masters.

The little republic of Switzerland has conscription, but the idea that a citizen owes military service to his country is repugnant to our people. Our country's flag is at the mercy of any vender who may choose to spread notice of his wares on its folds, and the man in the ranks has a very modest place in public esteem until "the troop ship's on the tide."

These national characteristics, which become governmental ones in a democracy like ours, make it impossible to organize and discipline an effective army from the point of view of military experts.

FANTASSIN.



VENTILATION OF MAGAZINES.

BY LIEUTENANT C. D. WINN, ARTILLERY CORPS.



SINCE the construction of permanent fortifications has been carried on by the different nations of the world it has always been quite a problem to keep the magazines and galleries dry, for the purpose of preserving from deterioration powder and other material stored therein. It is a well-known fact that dampness causes a very marked change in muzzle velocity of our powders, especially those of the black and brown variety, the smokeless powders not being affected so much thereby. In addition to the magazine being water-tight, having the necessary drains, etc., the proper method of ventilating has received a large amount of consideration not only from our engineers, but also those abroad.

The character and construction of our magazines must, of necessity, make the question of ventilation a serious one. Great masses of earth and concrete are used in this construction, and the walls and parapets must be of such thickness as to render them absolutely impossible of penetration, even by guns of the heaviest caliber. The construction thus rendered imperative makes our magazines little better than caves or cellars, and hence, if not ventilated, they are damp. So far as I have been able to learn and from personal knowledge, no really successful means of ventilation has as yet been adopted.

Experiments of the most varied character have been carried on with this object in view. It is the purpose of this article to give a few of these experiments that seem to have had the greatest success and some that have been failures.

One method that has been extensively used (and has proven a failure), is the lining of magazines with porous tiling. This tiling does not prevent condensation, but on the contrary I think aids it. The tiling absorbs more and more moisture, and eventually becomes saturated, thus further lowering the temperature of the walls. After saturation takes place the moisture simply collects in beads on the surface, these beads finally forming little streams that run on the floor.

This method, I think, would be of use if the magazines could, at stated periods, be thoroughly dried; the tiling could then collect the moisture between times.

Another method which has been tried is to have a double wall entirely around the magazine, and the air space in between to be connected with the outside air. This method does not seem to have met with the success it is thought to have merited, and my understanding is that it is to be dropped. The English engineers seem to think a great deal of it and are using it in their fortifications.

I now wish to call attention to a form of ventilation in use in a great many of our magazines, the effect of which is familiar to many. A small galvanized-iron pipe is run straight down into the magazine; the top end of this pipe terminates in an arrangement for keeping the rain out, but allows the air to enter or come out. One officer speaks of this as a means of irrigation, and the principle involved is the same as is used in many parts of the West as a means of irrigation. To understand this I will give a brief synopsis of this method as it is used for irrigating purposes. Porous tiling is put under ground across a field, one end of this long stretch of tile being higher than the other; these stretches of tile are placed at certain intervals. In the summer time the ends are uncovered, due to difference in level, the air passes through the pipes by gravity, and coming into contact with the cold tiling gives up its moisture, this moisture passing through the tile into the earth.

Any one who has examined most of the magazines which are supposed to be ventilated by the small six or eight inch galvanized-iron pipe could well think that they were being irrigated instead of ventilated. In these magazines referred to the ventilators remain open during all weather. When the doors and windows are closed tight a small amount of air enters, either under the doors, or else may flow down the ventilators. As the air in question is not of sufficient volume to cause any change of temperature in the walls of the magazines, it simply deposits its moisture when it strikes the cold walls, and so the process goes on, and the magazines, given up as hopeless, are abandoned.

The method now employed for ventilation and fully described in General Orders, circulars, etc., does not always seem to give the desired result. It gives, as a rule rarely

ever to be deviated from, that magazines should never be opened except when the temperature of the air outside is lower than that inside the magazine. To assist in being able to tell just when magazines should be opened for ventilation, dry and wet-bulb thermometers are placed near the magazine, and a table to show the weight of water per cubic feet of air for each degree of temperature, from thirteen degrees to one hundred degrees, when the reading of the wet bulb is from zero to fourteen degrees lower than that of the dry bulb. Another table gives the temperature that the inside of the magazine shall be before the magazine is opened for ventilation.

The practical working of this system is familiar to many. If followed closely the temperature inside the magazine is gradually lowered, until, following the rule, it must remain permanently closed. In many of our southern forts I doubt if this condition could ever be fulfilled. I will give an experience that I once had.

At a post where I was formerly stationed we had the dry and wet-bulb thermometers installed. Every morning and afternoon the readings were taken, generally by an officer, and upon consulting the tables it was found that magazines could not be opened. Inside of these magazines great beads stood over all the *tile-lined* walls, and all along little streams were running down, while over the floors stood little pools of water, these pools being constantly fed from the walls. These magazines could not have been further injured, so far as dampness was concerned, by playing the hose over the walls.

I had an opportunity of seeing these same magazines under different conditions.

During the maneuvers of 1902 this battery was placed out of commission, owing to lack of troops at the post. The opportunity thus offered was taken advantage of to paint guns, carriages, doors, windows, etc. All doors and windows were opened every morning, and remained open all day for the convenience of the painters. At no time was the temperature inside higher than outside of the magazines; yet these wet walls became dry, floors dried up, and there were very few damp spots left. This impressed me at the time as being peculiar, and opposed to the theory of the thermometers, yet nevertheless it worked, and worked beauti-

fully. A few weeks later upon return of the troops magazines, galleries, etc., were again closed. Dampness came as before, and when I left this post the engineers were having the floors of this magazine torn up, were putting in more drains, giving the floors greater pitch, putting a new coating of water-proof material on top, and making other improvements for the purpose of making the magazines dry. I don't know the result, but *I think I do*.

The condition mentioned above seems to be chronic. I have seen valuable dynamo and electric machinery in rooms where the water stood in great beads all over everything and was running in little streams over the machines, thus causing rapid deterioration, not to speak of short circuits and other troubles to which such machinery is heir.

At this post, up to the present time, no dry and wet-bulb thermometers have been furnished. The magazines have been opened in good weather, the result being that they are dry and in good condition; and I understand that the same result obtains at Fort Levett, on Cushing's Island. In my talks with other officers on this subject they all seem to agree that there is something radically wrong with the system of ventilation as it now exists, and seem to think that some other course will have to be adopted. The above instances of ventilation that I have referred to are to show some experiments that have been tried up to the present time and the results obtained. I now wish to consider some other experiments, and some of which promise success.

During 1903 and 1904 experiments have been carried on at different posts along the coast with more or less varying results. The apparatus used in some cases was crude, such as was on hand, or could be made without much outlay of funds.

One place selected was at one of the forts at the eastern end of Long Island. The experiments here were under the direction of Colonel Powell, Corps of Engineers, U. S. A. His method was by the use of a fan, but under different conditions from those under which this has formerly been tried. The magazines selected for the test were very wet, due to condensation. They were so arranged that air entering one magazine would pass through doors or openings cut in the walls, and be compelled to make a complete circuit of all the rooms before it escaped to the outside air. The air from the

fan was passed over steam pipes, thus becoming superheated. The result was most satisfactory. After a run of three hours the rooms through which the circulation was arranged were completely dried out. These rooms thus treated remained dry for a period of over two months, being frequently opened in the meantime, yet showing no condensation, although the period was most favorable for it. Colonel Powell also used a lot of oil barrels, fastened together with canvas, to convey the superheated air to distant rooms, through which circulation could not be obtained by the above method. Colonel Powell speaks of the plant for this operation as costing only about \$750. This certainly does not look prohibitive, judging from the results obtained. While the apparatus for the above experiment was crude, yet I think in this connection should be mentioned benefits that would accrue to posts as far north as this one.

This harbor has for its defense two large mortar batteries in addition to other armament. From December to March not a mortar in any battery has been traversed, due to the fact of the accumulation of ice on the roller path, rollers, etc.

The temperature during these months is extreme, with occasional thaws in the middle of the day, which only aggravate the trouble. It would seem to be practical, from the experiments of Colonel Powell, to have ducts leading into the well under each mortar and into the magazines, through which warm air could be forced, thus keeping the ice from around the rollers, covering in some manner the opening in the racer. This warm air in addition to keeping away the ice would render the oil in the cylinders more liquid, and in addition raise the temperature of the different metal parts so that there would not be the liability to fracture when firing was taking place. In addition the magazines could be rendered fit for cover or occupation during the time of an expected attack or siege, as they would certainly have to be used if an enemy were so inconsiderate as to attack in winter. Those who serve here know that they could not now be used without suffering and sickness due to the cold. I think that such questions as these are extremely vital for such points as this, for in a bombardment of any proportions our barracks and quarters would surely go. We only have to look to Port Arthur to see what would happen to any of our northern posts.

What seems to be a long step in the right direction toward solving the problem of ventilation of magazines was undertaken last year at Fort Hamilton, New York, and at Fort Williams, Maine. While differing only in some constructive features, the results obtained are the same. At Fort Hamilton, New York, a ventilator shaft was constructed (having a diameter of about eighteen inches), from a magazine, with enough turn in this shaft to prevent any shell fragments from entering the magazine. Where the shaft enters the air there is a hood so arranged that it can be turned about its vertical axis, thus enabling it to be forced in any direction. The whole principle of this system is to admit air to the magazines in such volume as to raise the temperature above the dew point, and with this large volume of air passing through to absorb any moisture on the walls, thus leaving the rooms dry. A few exceedingly simple rules are necessary for the operation of the system; no instruments, thermometers, or anything confusing are employed.

The rooms and ventilator shaft to be kept closed during calm weather, fog, rain, mist, etc., and to be opened in fair weather, when the wind is blowing five miles per hour or more. When conditions are favorable all windows, doors and ventilator shafts are opened. If the wind is blowing from the rear of the battery the hood on the shaft of the ventilator is to be turned so that the opening faces away from the doors and windows. The air now enters through these openings, passes through the rooms and out of the shaft; and owing to the size of the ventilator shaft the change of air in the rooms is very rapid. Now, when the wind is in other directions than from the rear of the battery, the opening of the ventilator shaft hood is turned toward the wind; the air circulation is then down the shaft and through the doors in the rear.

Major Black, of the Engineer Corps, has devised a scheme very much on the lines of the above. His plan is to have ventilators very much on the order of those aboard ship. The ventilators are to be turned to or away from the direction of the wind, as the case may be. The heavy deck-plates are to be used to cover the openings of the ventilator shaft during action.

So successful has Major Black been, that magazines that had been abandoned as unfit for use have been reclaimed, and are now being used for the storage of ammunition, and this, too, in a very short time after the ventilators were placed in operation. The ventilators used in this experiment are very crude

affairs made of wood. This scheme is so easy and so different from others that it is hoped further experiments will be undertaken with a view to its permanent adoption. One objection has been raised which, however, I do not think is an objection; namely, that if these ventilators are installed that the necessary attention to setting them will not be given by the artillery. With the orders that are at present in force, battery-officer, pit commander, gun commanders, mechanics, etc., who are at the guns every day (and especially as the ventilation does not have to be given every day). I certainly fail to see why a few simple regulations could not be carried out, or else some one made to suffer for it. I most certainly do not think that this objection holds good.

There is one feature, while not properly belonging to ventilation, yet as all of this has to deal with the matter of "keeping our powder dry," I think that it is not out of place at the end of this paper. One of the simplest methods of keeping the powder dry is to have a metallic, hermetically sealed powder case. So far as I know the army has never had a successful case of this description, while the navy has had one in use for some years. The magazines aboard ship can be flooded at a few moments' notice, the water pumped out and no harm done. And again, you can enter a ship's magazine and detect absolutely no odor of ether from the powder, while on the contrary, I have never entered a magazine where our smokeless powder was stored without this odor being more or less marked. Why we haven't a case that protects powder thoroughly, I am unable to say.

In the preceding remarks I have tried to give, briefly, a few of the failures and successes in the difficult problem of the proper ventilation of magazines. Much money and labor have been spent in the effort to bring about the desired result. It is believed that a point has now been reached in the experiments where we may look for definite results, and hope to see some of those magazines, now useless, reclaimed and used for the purposes for which they were intended. In closing, I wish to thank the officers of the United States Engineer Corps for their kindly assistance in furnishing me much information concerning this subject.

NOTE.—Referring to the experiments being conducted by Major Black, I wish to mention that heavy screen doors are to be provided, also windows of the same material, so that the emplacements may be secured during ventilation. As magazines are so arranged that no door or window opening into the outer air is opposite a magazine door, absolute protection is thus secured.

THE PREVENTION OF DAMPNES DUE TO CONDENSATION
IN MAGAZINES.

(*The Royal Engineers Journal—Correspondence.*)

SIR: The interesting transcript* on the above-named subject, in the September number of the *R. E. Journal* recalled to my mind an experiment I made some forty years ago, when quartered in Guernsey.

It appeared that several boards of inquiry had been held, resulting in lining walls with cement, asphalt, etc., under the idea of the wet percolating through them; and finally, open batten doors had been fixed to allow of the free circulation of air.

I obtained permission from the G. R. E. (Colonel Hadden) to take in hand a small, asphalt-lined magazine, the walls of which were always streaming with water. To prevent the contact of the moisture-laden air, which I knew to be the culprit, with the rapidly-conducting surface of the asphalt, I painted it over with a thick coating of lampblack as a good non-conductor, with the result that the walls ceased to weep, except where left unpainted. Nothing further, however, was done, in deference, I fancy, to the tender feelings of the above-mentioned boards.

Yours truly,

H. C. SEDDON,

THE EDITOR, *R. E. Journal*.

Colonel, *R. E. (Retired)*.

DEAR SIR: The article on magazines in the last number of the *Journal* brings back to my mind a question which I propounded to my superior officer many years ago:

"Why do you want to prevent moisture condensing on the walls of a magazine? This condensation must necessarily reduce the amount of moisture in the air which is in contact with the powder or other stores. If the moisture is on the walls it cannot be in your powder."

I did not get an answer to the question.

I now ask another:

"Would it not be better to encourage as much as possible the condensation on the walls—making, of course, suitable arrangements for carrying away the water without its dripping on the powder cases?"

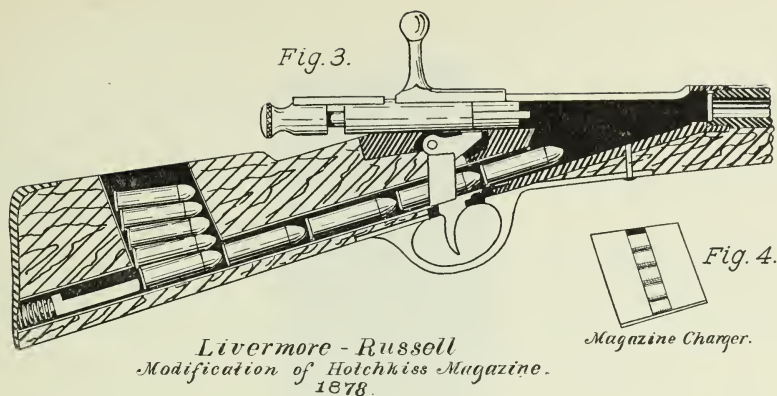
Yours truly,

E. ROBERT FESTING,

THE EDITOR, *R. E. Journal*.

Major-General, *R. E. (Retired)*.

* Extracts from the Annual Report of the Chief of Engineers, United States Army, for 1903, and is communicated by the Director of Fortifications and Works, W. O.



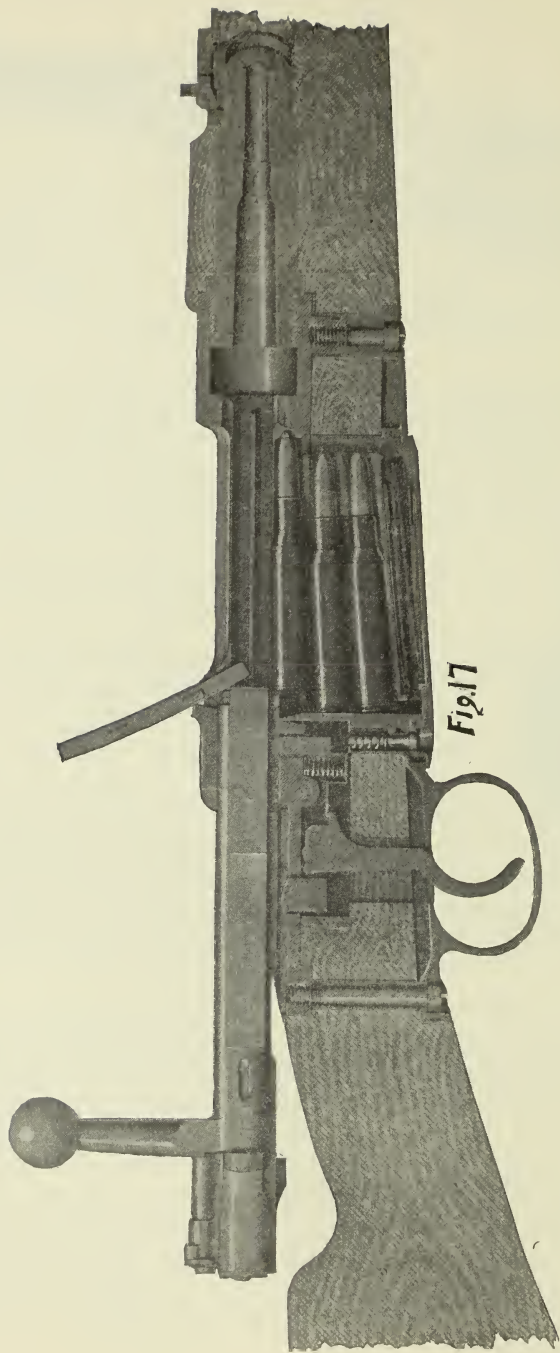
MODERN MILITARY MAGAZINE GUNS: THE ORIGIN AND DEVELOPMENT OF THE "BOX MAGAZINE" FOR MODERN MILITARY GUNS AND OF THE "CARTRIDGE-CLIP" FOR FILLING THE MAGAZINE.

BY LIEUT.-COL. ANDREW H. RUSSELL, ORDNANCE DEPT,



THE recent war between Spain and the United States brought into prominence the advantage the Spaniards had in being able to rapidly refill the magazine of their Mauser rifle. This was accomplished by the use of cartridges packed in small magazine fillers, called "clips," by which the five cartridges required to fill the magazine could be inserted at one operation. The result has been the adoption by the United States of an arm which is practically the Spanish Mauser gun in place of the Krag-Jorgensen adopted in 1893.

In late discussions a point of special interest in America has been overlooked—that the use of such clips as are above referred to is due to invention by two United States Army officers, Col. W. R. Livermore, of the Corps of Engineers, and Lieut.-Col. A. H. Russell, of the Ordnance Department. As early as 1878 they brought to the attention of the United States War Department the advantage of using "box magazines" filled in this manner, and extracts are given below from their views submitted to different army boards. It is believed that their claim to precedence cannot be successfully challenged, and it is thought they first made use of the term "box magazine."



SPANISH MAUSER MAGAZINE RIFLE.

The following quotation from the *Army and Navy Journal*, New York, December 31, 1898, will show the estimate of this method resulting from the Spanish War, though it gives a decidedly unfair reference to the United States Ordnance Department:

The test of service in Cuba under unusually trying conditions was very favorable to the mechanism and manufacture of the Krag-Jorgensen gun, but there is no doubt that the result of our experience there was to give our officers and men a great respect for the Mauser, not as a superior arm, but as embodying the magazine (clip) system of loading, the very feature to which the board objected.

This system has not enjoyed the favor of our Ordnance* Department, and the full statement of the whys and wherefores made a remarkably strong case, until we faced one of those magazine guns and found it more objectionable to us in front than to the men who held it. We found then that we had the wrong end of the argument, not that we want to pump out shot by the clip full all the time, but because in some situations the ability to do so may become a critical advantage.

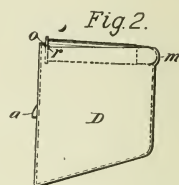
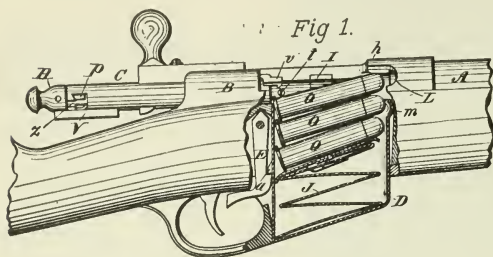
All the great European powers, except Great Britain,† have adopted rapid-fire magazine rifles, capable of being loaded by the use of the clip, enabling the soldier to load five shots about as quickly as the Krag-Jorgensen can load one; and Great Britain is engaged in devising means by which the Lee-Metford, used in the British Army, can be loaded in this manner. The Krag-Jorgensen, Mauser, Mannlicher and Lee-Metford, so far as their range, penetration and velocity is concerned, have little advantage, one over the other; but in rapidity of fire, if any, the Mauser and Lee straight-pull, in use in the United States Navy, are in advance of the Lee-Metford or Krag-Jorgensen.

In considering the Krag-Jorgensen magazine, it is to be remembered that, in order to prepare it for use, a distinct and separate motion is required to open the magazine for refilling, and another motion to close the magazine after it is filled. In addition, the cartridges are inserted one at a time into the magazine, and moreover, the five cartridges for the magazine have to be picked one by one from the cartridge belt, which carries each cartridge in a separate loop. The delays due to this awkward and complicated procedure made it difficult to use continuous magazine fire and in the fight at Santiago practically limited the magazine for the most part to use as a reserve, as would have been done with the old tubular maga-

*It is only fair to point out in reference to the above statement in the *Army and Navy Journal* that the "Board" which selected the Krag-Jorgensen gun was a mixed board composed of infantry, cavalry and ordnance-officers, and that its selection was confirmed by another similar board; and that this received the endorsement of the "Board of Ordnance and Fortification," also a mixed board with the general of the army at its head, before the Ordnance Department manufactured it. The Ordnance Department made no selection at all, merely accepting the reports of these boards. The omission to adopt a clip system cannot be said to indicate that it was out of favor with the Ordnance Department.

†While France has adopted the box magazine and clip to some extent for mounted service, a large part of the infantry is still armed with the Gros rifle, having a tubular magazine under the barrel and unfitted for use with the clip.

zines. Though clips were proposed and placed on trial in the United States Army for loading the Krag-Jorgensen magazine, none were adopted, and their use would not dispense with the two extra motions required to open and close the magazine.



At the same time that Mr. James P. Lee was developing the *detachable* box magazine associated with his name, figures 1 and 2, and formerly used to some extent in the United States Army and Navy in modified form, two officers of the United States Army, Livermore and Russell, were working independently of him on *fixed* box magazines arranged to fill rapidly, and with these latter officers originated, it is believed the plan of filling such magazines by means of small prepared packages, now commonly known as "cartridge clips." Large removable reservoirs of cartridges had previously been used in the butt-stock of rifles. The Lee magazine was not adapted to rapid refilling, whether on or off the rifle.

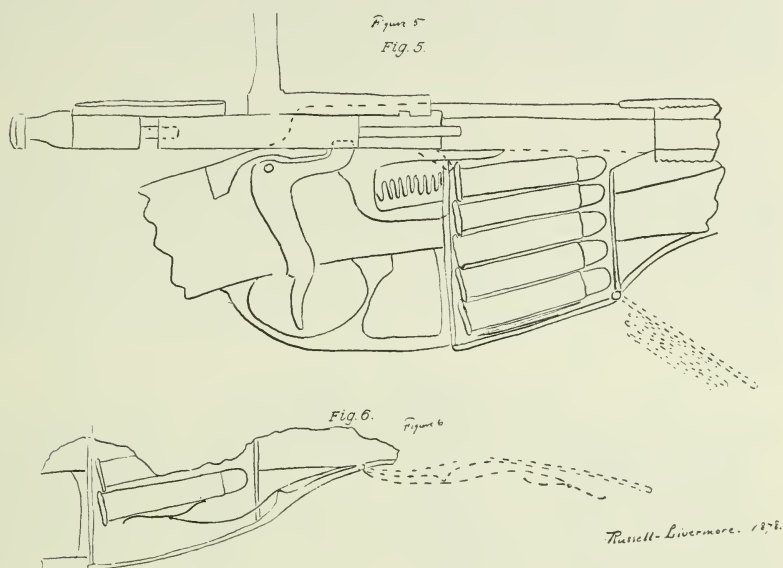
Livermore and Russell were among the competitors with Lee before the United States Magazine Gun Board in 1878.

A model of the Livermore-Russell device, applied to filling the Hotchkiss tubular magazine through a mortise in the butt-stock of the rifle, was submitted to the board, and at the same time drawings were prepared of a device which dispensed with the tube and had a fixed box magazine under the receiver of the gun, just in front of the trigger guard, the magazine being filled from the bottom, which closed with a swinging gate.

The first device is shown in figures 3 and 4; the second in figures 5 and 6, representing the magazine gate, both open and shut. (See page 47).

It is often asserted that the "repeating type of magazine arms," in which the clip is used, or may be used, involves the danger of greater waste of ammunition than the Krag-Jorgensen type, or than the old tubular type, both of which were

intended to be used principally as a reserve. The tubular magazines run lengthwise under the barrel or in the butt-stock and carry the cartridges placed end to end.



The following extracts from views submitted by Livermore and Russell to the United States Magazine Gun Boards, 1878 and 1882, are confirmed by the present experience that the clip system may afford the best means of controlling the fire of troops. The method there outlined is practically that now followed in the German Army with a gun adopted much later, and the views expressed far antedate and foreshadow the system of "fire tactics" prepared by Mayne. The Germans* and Austrians carry this principle so far that they have no "cut-off" for the magazine, and allow it to be filled only by means of the clip. It is even difficult to use the gun as a single-loader when the magazine is empty.

The following is an extract from views expressed to the United States Army Magazine Gun Board in 1878, in connection with model presented by Livermore and Russell:

VALUE OF BOX MAGAZINES.

The main feature consists in a magazine in which five or more cartridges are held in such a position in the stock as to move laterally, either by gravity or by the action of a spring, until one is impelled forward to the chamber of the piece—the size or shape of the lateral

* See later references to changes in the German rifle.

magazine preventing the cartridge flanges from interfering, by causing them to overlap in the same direction. The cartridges are to be carried in the belt or cartridge box in packages of five or more, enclosed in a cartridge holder, from which they may either be taken one at a time to load in the ordinary manner of single breech-loaders, or the holder and its contents may by a simple motion be inserted in the lateral feed chamber, thereby supplying at once five cartridges to the magazine.

* * * * *

Among the objects sought by the new magazine¹ arrangement may be mentioned the rapid replenishing of the magazine, while the cartridges are carried in convenient packages for transportation; whereas usually the magazine is filled by inserting the cartridges one by one, or the cartridges are carried in tubes or unwieldy packages—but another important consideration is that it enables the officers and non-commissioned officers of a detachment to regulate the expenditure of ammunition of the squad under their immediate control.

OBJECT IN VIEW.

It is believed that the following kinds of fire are all desirable in some of the various exigencies of a combat.

FIRST.—A slow fire like that of the muzzle-loader.

SECOND.—The more rapid fire of the common breech-loader.

THIRD.—A fire still more rapid, but restricted by the necessity of preserving a supply of ammunition in the possession of each soldier.

FOURTH.—A rapidity approaching the performance of the machine gun, or the "fire at will."

Our devices are intended to make these several varieties of fire practicable, and under the control of company officers.

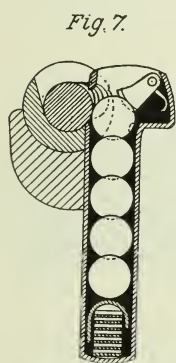
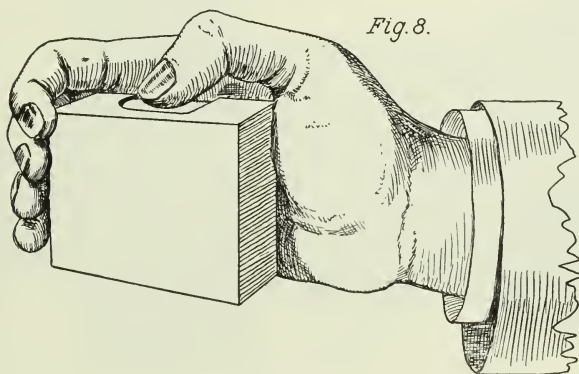
It has been found that indifferent troops will often purposely waste their ammunition, or throw it away for the express purpose of withdrawing from exposure; and with the ordinary breech-loader this tendency is hard to correct; for firing by command would generally entail too great a delay, and in the "fire at will" it would be impossible in the heat of action to demand of a soldier that he should fire a definite number of cartridges and then stop.

But, if the gun is so constructed that five or more cartridges can be loaded by the same motion as one in the single breech-loader, it will be practicable to give the command: "Load five cartridges," or, "load ten cartridges," which the soldier will obey according to previous instructions, and maintain a slow or rapid fire according to circumstances.

But circumstances may frequently arise which require a more rapid fire; as, for example, where a small number of men is expected to hold a position against a much larger force. In this case it may be practicable to deposit a much larger number of cartridges by the side of each man than would be convenient for him to carry upon the march or take into action upon the assault; under such circumstances the command to fire his extra ammunition would be interpreted within these limits as directing him to rapidly discharge his magazine with such rapidity as to produce the greatest effect, and to instantly reload it as soon as discharged, so keeping up a continuous rapid fire until his extra ammunition is exhausted, or until the signal to cease firing.

In order to facilitate the manipulation of the piece, it is recommended that the handle or knob of the bolt be placed further to the rear than in the Hotchkiss gun of the present model, or, if necessary, that the butt be shortened, so that the knob may be within easy reach of the hand when the piece is at the shoulder, and thus greatly increase the rapidity of the discharge. By this arrangement of the handle the hand is brought nearer to the trigger when the bolt is closed, so that less motion is required in the hand to load and fire.

The Mauser gun used by the Spaniards afforded this facility of operating the bolt by having the handle well back, and American officers from the fight before Santiago report that they found the Spaniards, in repelling the assault, used this last method of rapid fire above predicted—this probably accounting for the vigorous resistance offered by a small

*Fig. 7.**Fig. 8.*

LIVERMORE-RUSSELL.

number of troops far outnumbered by the assaulting body. In the block-houses it was found that the Spaniards had rested their rifles pointing through the loop-holes, and from piles of cartridge clips placed at their side had maintained a continuous fire with practically a limitless supply of ammunition. Great quantities of ammunition in clips were abandoned there by the retreating Spaniards. The United States Volunteers, though mostly armed with a single-loading gun, are said to have fired a much greater proportion of their ammunition than did the regulars with their magazine guns, in some cases expending all their cartridges while the regulars hardly exceeded ten. This illustrates the above quoted remarks about the lack of control over the fire of raw troop.

Before the United States Army Magazine Gun Board of 1882, Livermore and Russell submitted a completed gun for

trial, in which the magazine was placed at the side of the receiver, extending downward, as represented in cross section in figure 7, and was arranged to be filled through a side gate at the top from a cartridge package or "clip" grasped in the hand as shown in figure 8, and applied to the mouth of the magazine for stripping the cartridges from the clip into the magazine as shown in figure 8 (bis) reproduced from a photograph of the original gun. The object was *to utilize the packet or clip without making it an essential part of the magazine mechanism*. This system also contemplated the use of a clip with a central as well as with a side magazine. No separate motion was required to open the magazine to admit cartridges,

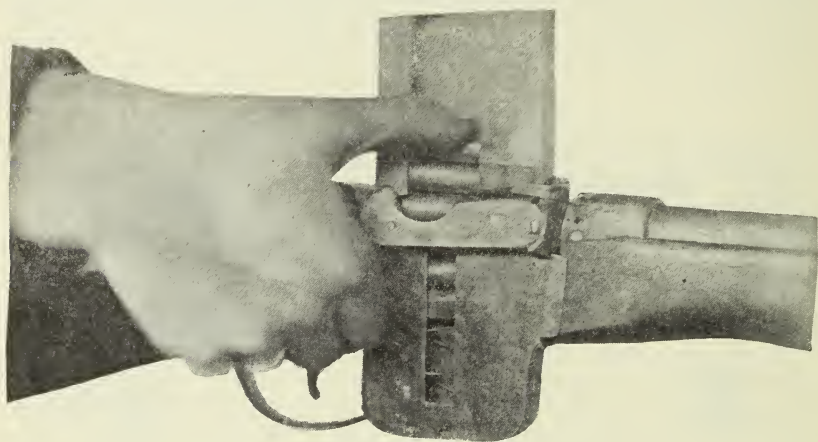


FIG. 8 (BIS).

LIVERMORE-RUSSELL—Reproduced from photograph of original gun.

the gate at the mouth opening automatically when the cartridges were pressed against it, and closing again when the cartridges were in.

The Livermore-Russell system and the Lee detachable system were practically the only examples of box magazines submitted to this board out of the nearly forty guns presented, the others being tubular magazines; but the remarkable influence exerted in a few years by the new ideas is shown by the fact that only two or three of the about fifty guns submitted to the United States Army Board of 1892 were tubular, the rest being box magazines based on the above two systems; and that only box magazines, generally fixed and adapted to use with clips, were presented to the Navy Board a few years later.

In presenting the Livermore-Russell system for trial, the following views were submitted to the Board of 1882. The plan of carrying detachable magazines in a belt had been likewise proposed by Mr. Lee for his detachable magazines, also holding five cartridges. The proposed method of packing cartridges in clips at the arsenals and issuing them in this manner was afterward adopted in Germany, Austria, Spain, and wherever the clip system has been adopted. The clips filled with cartridges are packed in paste-board boxes, readily opened. The clips are carried by the soldier in special belts with pockets, and this has now been adopted for the United States service.

Extract from the paper submitted to the United States Army Magazine Gun Board, December 6, 1881, with the Livermore-Russell Magazine Gun:

PREPARED PACKAGES FOR CARTRIDGES.

This arrangement * * * allows the use of a prepared package of cartridges, from which the magazine can be filled at once. This consists of a box of tin, zinc, paper or other suitable material in which are placed, side by side, as many cartridges as are required to fill the magazine. A continuous opening runs across the top and down the side of the box, and a flexible tongue at the open lower end of the box retains the cartridges in place for transportation. A double box is also submitted.

TO FILL THE MAGAZINE FROM THE PACKAGE.

To fill the magazine, this box is placed with the right hand (the left hand holding the rifle) on the top of the magazine, the open end of the box downward, and the thumb or finger is then run downward through the channel in the side of the box, automatically opening the bottom and forcing the cartridges all together into the magazine. The box then drops off and the piece is ready for loading.

MAGAZINE CAN BE FILLED EVEN WHEN THE GUN IS LOADED.

It will be observed that the cartridges can be inserted into the magazine whether singly or all together, even while the rifle is loaded, and that the bolt does not have to be drawn back, as in many guns,* before the magazine can be filled. It is hardly necessary to discuss this obvious advantage; for a marksman on the lookout for a shot and anxious not to waste a bullet, might hesitate long before he would unload his piece to fill his magazine, especially when the operation of filling the magazine is slow and difficult.

The new system is also well adapted to refilling a partially depleted magazine, and when the magazine is empty no time need be wasted in removing the magazine to refill it or replace it by another, but the cartridges can be inserted without delay from the cartridge box.

* This referred to tubular magazines, these being the only fixed magazines then in use. The Hotchkiss, Kropatchek, Ward-Burton and others were so filled. The cartridges were inserted one by one, end on. The remark quoted applies, however, to most forms of box magazine adopted later—the Mauser, Mannlicher, etc.—which also requires the butt to be drawn back to allow the magazine to be filled.

PACKING AND ISSUE OF BOXES.

The boxes might be packed at the arsenals, and sent full of cartridges to the troops; and if desired, the openings in the box might be covered with cloth or paper which would be removed when they were distributed to the soldiers. It would be well to issue empty boxes also, to be filled at the posts from the ordinary packages. For convenience of transportation the tin, cut to the proper form, might be sent to the posts and there bent on a "former" to the required shape.

BELT FOR CARRYING CARTRIDGES.

For transportation by the soldier, the filled boxes can be carried in a belt similar in design to the one submitted with the gun, this belt being provided if desired with additional loops for single cartridges.

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REASONS FOR PLACING CARTRIDGES SIDE BY SIDE.

The above descriptions will show clearly the reasons for using a magazine containing cartridges placed side by side instead of end to end. Such an arrangement, besides preventing the danger of explosion by pressure of bullets on the primers, affords the readiest way of quickly filling the magazine, since packages containing the proper number of cartridges are of more compact and convenient shape; the use of long tubes for carrying cartridges being awkward and impracticable, while they also require too much time for emptying them into the tubular magazine. The operation of filling the tubular magazine is also too slow from boxes which contain the cartridges side by side and allow them to slide out endwise, one by one. The advantage of placing the cartridges side by side increases as the diameter (of the cartridge) is reduced and as the length is increased, for more cartridges proportionally can then be carried side by side than end to end. This consideration is important, in view of the possibility of using a longer cartridge in our service, and of the fact that there is a tendency to still further reduce the caliber of the rifle.

A magazine illustrating the method of changing from a short to a long cartridge is submitted with the gun.

ADVANTAGES OF A SMALL MAGAZINE WHICH CAN BE QUICKLY FILLED.

It is assumed that next to rapidity in emptying a magazine, rapidity in filling it is required. This obviates the necessity of carrying a large number of cartridges in the magazine, a method which adds too much to the weight of the piece when the magazine is full, and causes too great a change in its balance while it is being emptied. The difficulty in refilling makes it more necessary that the tubular magazine should be large than that the lateral magazine should be so, in order to hold a greater reserve for cartridges.

The magazine system here submitted is an attempt to satisfy the great want—a magazine of comparative small capacity which can be filled as well as emptied very rapidly. Such a system should cause an advance on the claim that a magazine is to be used only as a reserve. When a reserve magazine is emptied in an emergency it is useless unless it can be rapidly refilled. *It should be so made that it will be ready for a succession of emergencies* until the exhaustion of all the cartridges that can be carried by the soldier or supplied to him. Five cartridges have been taken as a convenient number

for the lateral magazine (although it could be adapted to six), because the ordinary package of twenty could then be evenly divided for filling the boxes.

These boxes, as well as the Lee Magazine, afford a means of *regulating the number of cartridges used by the soldier.*

For example: By using the piece constantly as a magazine gun, the cartridges being supplied in packages of five or six, the captain can direct his men to limit their fire to one or more packages, and can so check the waste of ammunition. The use of the magazine in this way does not necessarily require that the rate of fire should be more rapid than usual, and experience shows that *the more rapidly a soldier can reload, the more coolly and carefully he will fire*, as the knowledge that he is always ready gives him a sense of security not otherwise obtained.

Compare for example the above-mentioned expenditure of ammunition with the Springfield gun and the Krag-Jorgensen gun by the United States troops at Santiago.

It is to be remembered that the guns tested by the United States Army Boards of '78 and '82 were of 45 caliber with a magazine for 405 grain bullet. As foreshadowed in the above quotations, it was the adoption of the still smaller caliber which led to universal adoption of magazine guns and caused the selection of box magazines instead of tubular, the clip system at once becoming popular abroad.

The importance of being ready for a succession of emergencies, as claimed in the paper just cited, is confirmed by the experience of the United States Marines in China, armed with the new Lee rifle, using the clip system. Navy officers commanding state that in some cases during the advance on Peking they had to use several clips full of cartridges in quick succession, and that the troops would have been at great disadvantage without this rapid method of refilling, even against the inferior troops of China. The testimony is strong to the effect that a clip system, now used in some form by most European armies, is almost essential, and that troops so armed have a decided advantage over equally good troops carrying guns not adapted to use with the clip.

Attention was drawn in the above quoted description to the importance of having the magazine accessible for refilling without withdrawal of the bolt. In respect to this advantage the Krag-Jorgensen gun follows the Livermore-Russell, though not adapted to rapid replenishing. This accessibility is more important in slow than in very rapid fire. The Spanish Mauser magazine is accessible only when the breech is open; but when the magazine is emptied, the soldier's

attention is attracted by a catching of the bolt on an upward projection from the rear of the magazine follower the moment the bolt is drawn back after firing the last cartridge from the magazine, and no extra motion is required before or after refilling the magazine. The cartridges are at once inserted, and the operation of loading and firing continues. The Spanish magazine can be filled singly, if necessary, without the use of the clips. Such a projection from the magazine follower is shown in one of the early Russell patents.

The requirements to be demanded of a magazine gun are given in the following views expressed in letter of January 11, 1882, to the United States Army Magazine Board, submitting devices of Livermore and Russell:

REQUIREMENTS TO BE DEMANDED OF MAGAZINE GUNS.

It is assumed that a magazine gun should, if possible, combine the following features, so far as the magazine is concerned:

FIRST.—It should be sure and rapid in its delivery of cartridges.

SECOND.—It should be of small capacity to avoid too great addition to the weight of the piece, and too great a change in its balance in emptying the magazine.

THIRD.—It should therefore be capable of rapid replenishing, and this is important even with a large magazine.

FOURTH.—Its mouth should be accessible even when the breech is closed and the gun loaded.

FIFTH.—It should be so placed as to make the gun balance as well as possible, and to involve as little change as possible in its balance in emptying the magazine.

SIXTH.—It should involve no danger of exploding the cartridges in the magazine, this requirement pointing to the arrangement of cartridges side by side instead of end to end.

SEVENTH.—The mechanism should be as simple as is consistent with these requirements, and should, if possible, involve no mechanical connection between the breech-bolt and magazine.

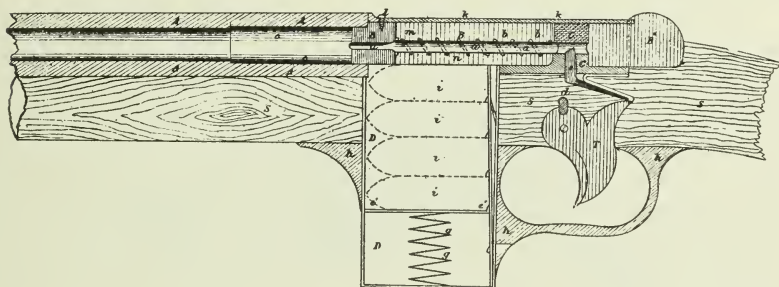
The advantage of having the insertion of the cartridges into the magazine automatically open its mouth, and of having the clip drop off without an extra motion (as stated in description above), might properly have been added to these requirements.

The Livermore-Russell gun submitted at that time was provided with a prominent cut-off, and this cut-off did not interfere with refilling the magazine, whether arranged for single or magazine fire. The gun could be used as a single-loader whether the magazine was empty or full. This cut-off was peculiar in utilizing the bolt itself to prevent the rise of cartridges from the magazine by limiting the retraction of the bolt enough to prevent its passing in rear of the flange

of the top cartridge. This was accomplished by a movable "stop," operated by a lever at the side of the receiver; and the same kind of cut-off has been adopted in the new United States Springfield magazine rifle. The other box magazines submitted before the board of 1882, the "Lee," had no cut-off, it being necessary to lower or remove the magazine for single-fire. For tubular magazines, the cut-off either operated directly on the cartridges or threw out of gear a rocking or sliding cartridge-carrier used to transfer the cartridge from the magazine to the receiver and operated by the bolt.

In confirmation of the ideas of Livermore and Russell, expressed more than ten years before, the following conditions were published by the U. S. Army Ordnance Depart-

FIG. 1. *Fig. 9.*



English Patent 1867.

ment, September 16, 1893, as advantageous or essential for the magazine of a good magazine rifle of small caliber, but adapted to the needs of the U. S. Military Service; these being the conclusions of the Magazine Gun Board of 1893:

FIRST.—It is essential that the arm be susceptible of use as a single loader with magazine held in reserve, and also well adapted for such use when the magazine is empty.

SECOND.—The cut-off should be so prominent as to be readily observed by the squad leaders, but not so placed as to be liable to be inadvertently operated by the soldier, and must be capable of easy operation when so desired, whether the magazine be empty or full.

THIRD.—It is desirable that the magazine may be charged whether the cut-off be arranged for single or magazine fire.

FOURTH.—It is essential that the magazine may be readily loaded or replenished with single cartridges.

FIFTH.—It is desirable that the magazine be susceptible of easy loading from auxiliary chargers or packets, and essential that these chargers or packets form no part of the magazine mechanism.

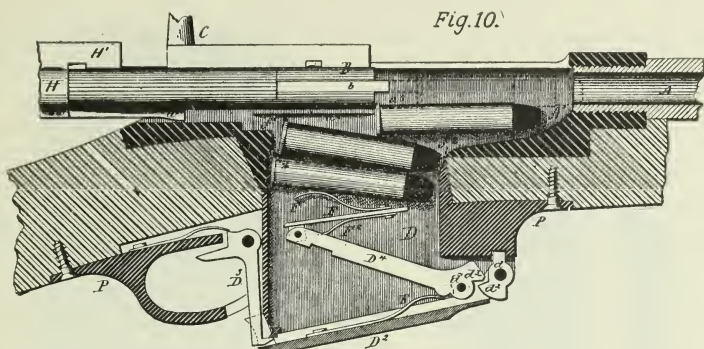
SIXTH.—It is essential that the floor of the receiver be of such form that cartridges can be laid upon it, and without assistance of the hand, pushed by the bolt into the chamber, and this whether the magazine be empty or charged and held in reserve."

A paper addressed by Lieutenant Russell to the Adjutant-General of the army, February 14, 1882, urged the propriety of considering the magazine system apart from breech-mechanism, in cases where they were not mechanically dependent on each other, in order to obtain the best magazine and the best bolt. The views therein advanced regarding the distinction to be made between the magazine and the breech mechanism were practically followed by the U. S. Navy Board of 1894, though generally disregarded by United States Army Boards. There is an entire independence between the mechanism of the magazine and the mechanism of the bolt except in rare instances, since magazines requiring a carrier operated by the bolt have been mostly discarded for military purposes. No modern box magazine requires this.

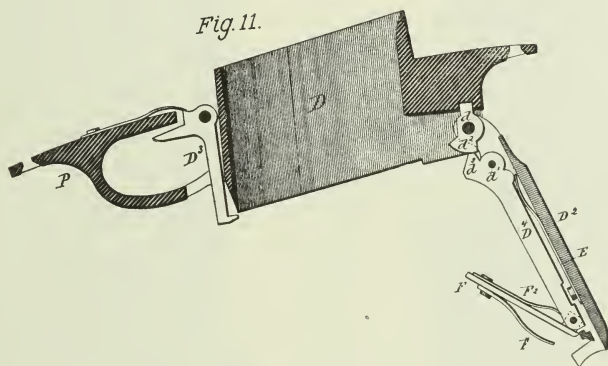
The precursor of both the Lee and the Russell box magazines, placed under the receiver and in front of the trigger guard, was the invention of Walker, Money and Little in English patent 483 of February 22, 1867. This is shown in figure 9. It had no arrangement for rapidly filling the magazine, and it appears to have had no practical development. This magazine had no catch at the mouth to retain the cartridges; the follower, after moving up the width of each successive cartridge, being caught at intervals by a ratchet-plate at the rear.

The Livermore-Russell device of figure 6 has its counterpart in the later device of the Tiesing-Kennedy patent of 1880. This is shown in figures 10 and 11. The similarity of the Krag-Jorgensen gate to this is noticeable, both of them involving the earlier system shown in figures 5 and 6, devised and afterward abandoned by Livermore and Russell in favor of means for more rapid operation. The Krag-Jorgensen magazine feeds into the gun from the side, after the manner of the Livermore-Russell magazine of 1880, shown in cross-section in figure 7. Compare this with the cross-section of the Krag-Jorgensen shown in figures 12, 13 and 14. Side views of the two guns shown in figures 15 and 16 also indicate the similarity. Figure 15, reproduced from a photograph of the original gun of caliber 45, shows the Russell and figure 16 the Krag-Jorgensen of caliber 30.

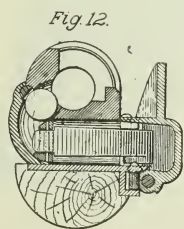
The English magazine is of the Lee detachable form, enlarged to carry eight or ten cartridges arranged in two rows. This requires a separate motion to detach the empty



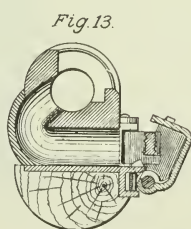
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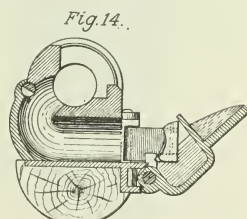
TIESING-KENNEDY.



Section of Rear, Closed



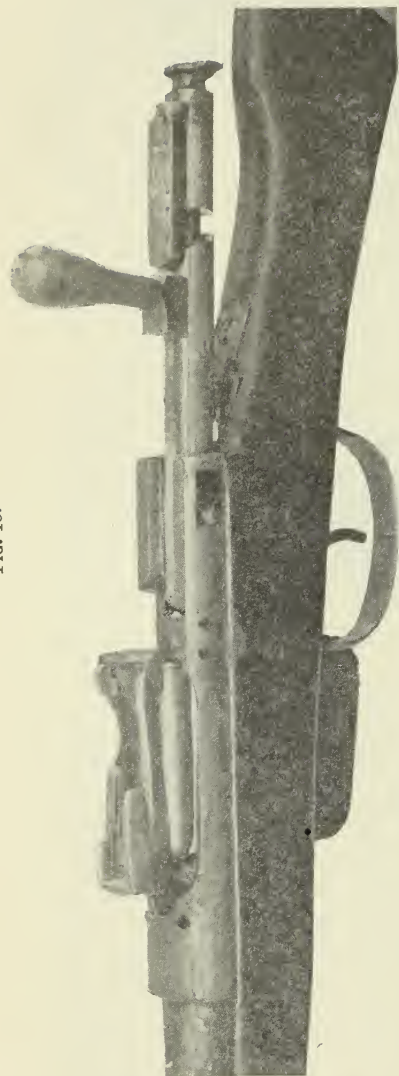
Section of Front, Partly Open



Section of Rear, Open

KRAG-JORGENSEN.

FIG. 15.

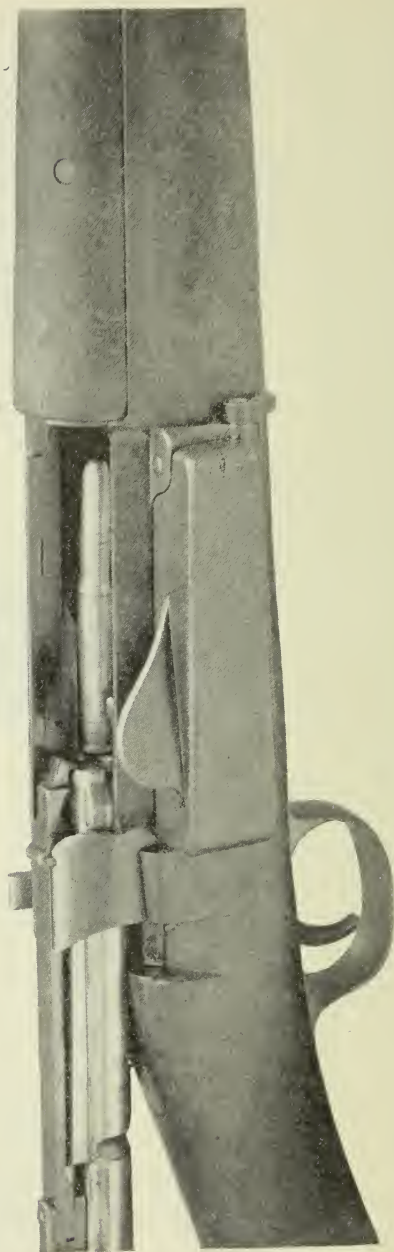


ORIGINAL LIVERMORE-RUSSELL BOX-MAGAZINE GUN.

Tested before U. S. Magazine Gun Board, 1882.

View showing resemblance to Krag-Jorgensen in method of feeding cartridges.

FIG. 16.



KRAG-JORGENSEN GUN.

magazine before attaching a new one full of cartridges, and each magazine has to be heavy and strong, each one having its own independent follower and follower-spring.

Rubin used the Livermore-Russell clip in filling the magazine of the gun developed by his experiments resulting in the adoption of a smaller caliber. The Schulhoff gun also used this clip. The French Daudeteau gun uses the same in skeleton form.

The Swiss magazine is charged from a paste-board box similar in shape to the Livermore-Russell clip of figure 8. It is a central magazine, requiring the bolt to be drawn back and the gun to be unloaded before the magazine can be replenished. It is double, like the English, holding ten cartridges. It has been recently decided to use the English magazine in place, as if it were a fixed magazine, and to fill it by means of clips as in the Swiss gun. It is said that the English rarely used extra magazines in the Boer War, but filled the magazine by inserting cartridges singly, an operation as awkward as in the old Lee magazine.

The Spanish Mauser magazine, shown in figure 17, is essentially the same in principle as the Swiss, being double like it, though reduced in depth to hold only five cartridges. This makes it possible to conceal the magazine within the stock without having a long projection downward in front of the trigger guard. The Mauser is filled in a similar manner to the Swiss, by pushing the cartridges in from a clip after the Livermore-Russell method; but the clip is a mere strip, or trough, holding the flanges of the five cartridges it contains, instead of having the form of a box enveloping the whole cartridge. It is the Livermore-Russell clip reduced to its simplest form, and is practically that adopted for the new U. S. Springfield magazine gun. In the recent war between Japan and Russia it is understood that both sides had box magazines filled from clips after the Mauser (Livermore-Russell) plan. France seems to be the only important power that has not wholly abandoned the tubular magazine.

Cartridge holders of both box and trough form had long been used with machine guns as hoppers, guiding the cartridges to the barrels—see the Gatling, Taylor, Lowell, Hotchkiss and other systems—and Bethel Burton had used on small arms a detachable hopper magazine feeding to a carrier which moved the cartridge laterally to position where the bolt would force

it into the firing chamber; but none of these corresponded to the independent clip for filling a magazine.

The Austrians, Germans and Roumanians have adopted forms of the "Mannlicher" magazine. In this system the packing case holding the cartridges is inserted into the magazine frame and retained there for the cartridges to be fed from it successively into the chamber of the gun after the method outlined in general terms in the above paper presented to the United States Army Board in 1878 by Livermore and Russell. (Figures 3 and 4.)

The Mannlicher gun, shown in figures 18 and 19, is so arranged that the holder falls out of the magazine cavity after all the cartridges have been fed forward by the bolt. The magazine cannot be used without the holder, which is a

Fig. 18.

Mannlicher Magazine Rifle

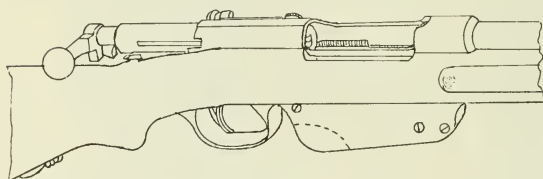
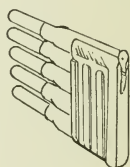


Fig. 19.



necessary part of the organism, but the magazine follower and spring are attached to the gun itself and do not form part of the holder, as in the Lee detachable magazine. Strictly speaking, the Mannlicher gun itself has no magazine, merely a magazine frame, which is made into a complete magazine only by the insertion of a cartridge holder containing cartridges.

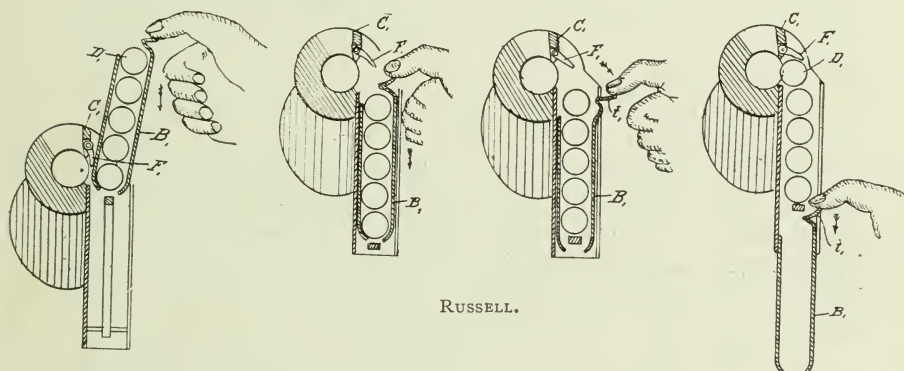
The Germans are now abandoning the Mannlicher for the Mauser magazine and clip, thus confirming the advantages of the system first proposed by Livermore and Russell.

In pursuance of their early plan of making the magazine independent of the clip while susceptible of use with it, a gun was presented by Livermore and Russell to the U. S. Army Board of 1892, in which the clip full of cartridges could be passed into a complete magazine, and therein released from the cartridges, so that the cartridges, freed from the clip in the magazine, could be fed forward by the bolt; the clip passing down and out. This is believed to be the first use of a clip in this manner. The advantage of inserting

a solid packet was thus secured by Russell without the disadvantage of having to retain the clip afterward and make it a working part of the mechanism.

This was an improvement on the Livermore-Russell device, shown in figures 3 and 4, whereby the clip could be inserted and withdrawn through the same opening. The liability to indentation of the Mauser clip before use might prevent its working under the action of the follower spring alone, while a similar injury would be less liable to prevent withdrawing a clip.

This principle was developed still further in the gun presented by Livermore and Russell to the Navy Board of 1894-5, in which the clip was passed continuously through a side-

*Fig. 20.**Fig. 21.**Fig. 22.**Fig. 23.*

slotted magazine, as shown in figures 20 to 23, leaving the cartridge in the magazine ready for use.

In connection with their magazine, submitted to the U. S. Magazine Gun Board of 1882, Livermore and Russell submitted models of a straight-pull gun. Such a system of different form, was adopted some years later by Austria with the Mannlicher, and by Switzerland with the Schmidt magazine. In 1892 Russell brought out still another straight-pull gun.

The U. S. Navy Board of 1894-5, adopted a gun and a magazine closely following ideas developed in these later Russell devices. The new Lee gun adopted was a straight-pull gun, in which, as in the Russell, the firing-pin was utilized to hold the actuator during the forward and backward movement of the bolt. Like the Russell, also, it had a complete fixed magazine, filled by use of independent clips which passed in at the top and out at the bottom, leaving cartridges behind in the magazine; the detachable magazine being abandoned

by the inventor, who is the same Lee mentioned in connection with earlier forms shown in figures 1 and 2, and the English detachable magazine.

It is therefore claimed that the three magazine guns used during the Spanish War—the U. S. Army Gun, the U. S. Navy Gun, and the Mauser Gun used by the Spaniards, were all essentially dependent on devices and methods first introduced by Livermore and Russell in 1878 and 1880; and that the new U. S. Springfield magazine gun is also. Yet Lee alone is commonly cited as the originator of the modern military box-magazine system.

The tendency now is toward an automatic small arm, in which the force of the powder on discharge is used to effect the reloading. This, however, does not practically affect the requirements for the magazine, since the continuous tapes used with automatic machine guns cannot well be utilized with small arms.

With certain automatic pistols now in vogue—the Borchardt, Mannlicher, Colt and Luger—a form of the Lee detachable magazine is used. The clip system is used with the Mauser automatic pistol, and it appears to find more favor than the detachable magazine for automatic rifles, being better adapted to their larger cartridges with longer bullets, and more economical in weight and in cost for the immense supply of ammunition required.

The following appears in Russell's U. S. Patent 230,823, August 3, 1880, showing that Livermore and Russell had then in view something very close to the automatic actions now common.

"Figures 28 to 31 inclusive represent a way of working my bolt by means of gearing.

* * * * *

"For small arms the rack-bar might be carried back to a spring plate at the butt of the gun, so that pressure of the gun to the shoulder would operate the bolt to advance and lock it, while upon relieving the pressure the spring would act to unlock and retract the bolt."

"I do not claim anything in the way of operating the breech-bolt by such spring plate and pressure against the shoulder, as it is not of my invention."

This disclaimer was made in view only of knowledge that Colonel Livermore had devices for utilizing the recoil for automatic reloading, for which it was then supposed that a separate patent application would be made. It was intended to operate these in connection with the Russell devices, though the patent cited refers only to their operation by hand pressure of the butt plate against the shoulder.

EMPLOYMENT OF PHILIPPINE SCOUTS IN WAR.

BY MAJOR WILLIAM H. JOHNSTON, PHILIPPINE SCOUTS,
COMMANDING FIRST BATTALION.



N a recent report by a special committee of the General Staff will be found the following comment:

One of the most serious conditions that will confront us in the first stages of any important war is the deficiency in ready infantry—the very backbone of an army.

The force in the Philippines and Alaska must be left out of consideration in any question of the immediate use of the Regular Army in any other theater, and it is the immediate use of the Regular Army in time of war that constitutes one of the chief reasons for its maintenance in time of peace. Indeed, if, as is by no means impossible, we should be engaged in war in an Oriental theater other than the Philippines, probably the only troops that could be safely withdrawn from the islands for service in such theater would be the native contingent.

Four regiments (of cavalry) are locked up in the Philippines, and likely to stay there, and we have consequently only two regiments on which to build our cavalry war strength.

If our entire force of regular infantry were in the United States, twenty-seven regiments would give us the exact number required (for a complete army corps); but, as we have already seen, ten of these regiments are in the Philippines and Alaska, are likely to remain there indefinitely, will not be available elsewhere in case of war, and must accordingly be left out of consideration. We have, therefore, only twenty regiments of regular infantry available for general war service.

To supply the lack of one regiment of cavalry and seven of infantry for immediate use in case of war of twelve regiments of the former and twenty-seven of the latter arm, this committee, representing the “brain” of our army, after an exhaustive, intelligent and dispassionate analysis of the situation, recommended, among other measures:

That the General Staff be directed to consider the means necessary for obtaining promptly a force of infantry sufficient in numbers and satisfactory in efficiency for our immediate needs in time of war.

The purpose of this paper is to indicate a method by which this deficiency of ready infantry and cavalry may be supplied within a year, without legislation of any kind that is absolutely essential, and with an economy of expenditure for the police and protection of these islands. Some legislation for the better organization and preparation for war of the “native

contingent" referred to by the committee would be advisable later; but by mere direction of the President troops may be found to relieve all of these two arms, except two regiments of cavalry and four of infantry, from service in the Philippines.

It is well known that, except in a few districts of Luzon and Mindanao, mounted troops cannot be used in these islands, while the supply of mounts and forage and the delivery of the latter at the cavalry stations results in a heavy expense. When field service is required of cavalry, during most of the year, mounts have usually been left at the stations, and cavalry dismounted has been used as infantry, subject to a loss of effective strength, because of details necessarily left to care for the horses.

The propriety and economy of substituting Philippine scouts for two regiments of cavalry and six of infantry, which might thus be retained in the States, and supply the complement of that complete army corps said by the General Staff to be necessary for immediate war use as a first line, will be shown later. After such a reduction of the force of American troops shall have been accomplished, the remaining infantry and cavalry might be stationed as follows:

DEPARTMENT OF LUZON.

	Headquarters and two battalions infantry,
Fort McKinley, Manila.	One squadron cavalry.
	One battalion engineers,
	Three batteries, field-artillery.
Camp Stotsenberg, Angeles, Lu- zon	Headquarters and one squadron cavalry.
Camp McGrath, Batangas, Luzon	One squadron cavalry.
	One battalion infantry.
Camp Wallace, San Fernando, Luzon,	One battalion infantry.
Camp Daraga, Legaspi, Luzon,	One battalion infantry.
In City of Manila,	One battalion infantry.

DEPARTMENT OF THE VISAYAS.

Camp Jossman, near Iloilo,	Headquarters and one battalion infantry.
Camp Warwick, Cebu.	One battalion infantry.
Camp Connell, Calbayog, Samar,	One battalion infantry.

DEPARTMENT OF MINDANAO.

Camp Overton, north coast of Mindanao,	Headquarters and one squadron cavalry.
Malabang, south coast of Min- danao,	One squadron cavalry.
Cotabato, south coast of Min- danao,	One battalion infantry.

Zamboango, Dept. headquarters,	Headquarters and one battalion infantry.
Lake Lanao, interior of Mindanao,	One-half squadron cavalry.
Island of Jolo,	One battalion infantry.
	One-half squadron cavalry.
Camp Keithley, north coast of Mindanao,	One mountain battery.

At some of the stations named there are quarters for more troops than above recommended. Such should be occupied by battalions of Philippine scouts, sent there in turn for recuperation after service in the field, and for instruction, equipment and reorganization, doing while at such stations all garrison duties required of other dismounted troops stationed there. All other stations now occupied by American troops may be safely trusted to Philippine scouts, besides the use of this "native contingent" for occupation of the less important stations now generally garrisoned by the scouts, where quarters are rented or temporary shelter erected by the troops, and their employment in districts as a reserve for the Philippines constabulary, to assist or replace the same, when conditions demand the substitution of military for civil control.

Let us see upon what such a substitution of native for American troops is based, and in what measure it would reduce the annual expense of this occupation.

The organization of Philippine scouts, which since 1901 has constituted a portion of the Regular Army, may be said to have passed through its experimental stage, and with a few exceptions the companies, regularly enlisted for the first time four years ago, have proved their usefulness. The periods of enlistment of most of the men expired in October, 1904, and all the companies have been reorganized, either by re-enlistment of former soldiers or by the enlistment of natives, many of whom had had previous service in other companies or in the Philippines constabulary. It is not exaggerating conditions to state that the average of soldiers with three years' service prior to their current enlistment is for all companies 50 per cent., a proportion hardly equaled in any organization of American troops.

The terms of appointment, four years, of a large majority of the officers having expired in 1905, only such as had been favorably recommended by their superior officers, inspectors-general and a board of officers convened by the commanding

general, Philippines Division, have been re-appointed for a second term of four years, and those whose previous service did not warrant a continuance of "trust and confidence," have been quietly discharged. It is understood that, under instructions of the War Department, all lieutenants of the organization must pass the same rigid examination of their records and efficiency before reappointment at the expiration of their provisional terms of appointment may be expected. It is believed that the commissioned personnel of the scout organization has never been in as excellent state as at present.

Enlisted men, who through ignorance or vice are deemed "unsuited for the service," are promptly discharged by orders from the Philippines Division, and men disabled physically, by orders from the several department headquarters. In this manner the enlisted personnel is at all times freed from undesirable members, and their places are promptly and easily filled, the companies being maintained at about their authorized strength, 104 enlisted men.

Hence the future rôle of this efficient organization should be considered, and such preparation made for its organization, equipment and instruction as to insure the most efficacious discharge of its functions in such rôle.

Since the formation, under the Act of Congress, approved February 2, 1901, of native scout companies, they have gradually been given the same instruction as is demanded by regulations and orders of other infantry soldiers. The degree of efficiency attained in such instruction has depended somewhat upon the intelligence and initiative of the company commanders, and also upon their ability to have their companies at one station under their personal supervision. Some companies, placed under the Civil Government under the Act of February, 1903, to assist the Philippines constabulary in the police of certain provinces or districts, have, in order to discharge such police duties, been necessarily scattered into three or four detachments, separated at times by several miles, and frequently such detachments are without an officer to insure their instruction and restrain their conduct. It may be expected that companies thus situated have not maintained, during such detached service, the same high degree of instruction as those which have been at garrisoned stations, or even at cities on police duty, but concentrated under their own officers. In many companies instruction in "first aid, signal-

ing, target-practice, athletic exercises, and ceremonies, equals that given in any American organizations.

Organized at first to assist troops in the field, their duty has gradually been assimilated to that of any infantry soldiers. Instead of accompanying other troops as scouts or guides, they have for a long time garrisoned stations where no other forces serve, and have operated in the field independently or in conjunction with the Philippines constabulary. The name "Philippine scouts" is really a misnomer; but, as it has been used since the original employment of natives in 1899, by the lamented General Lawton, as under such name many have contributed to the glory of American arms in the islands, sentimental objection would be heard if the companies were called "Philippine infantry", a title more expressive of their employment, even if less popular.

It seems to the writer that these efficient organizations, having "made good", so to speak, as infantry soldiers, should now be conducted through the second phase of their development, a preparation for use in war as any other infantry would be used. In other words, they should be considered as available for the national defense whenever such purpose suggests the employment of infantry, and not be restricted to police or garrison duty in these islands.

The following considerations render such employment feasible:

1. Having proved their loyalty for periods of from four to six years when opposed to the lawless element of their own people, they would prove faithful allies of any American force on any soil and devoted followers of the national colors on any field of battle, whatever the climate or however distant the sphere of assignment. Indeed, their use against any enemy of the United States would do much to unite the entire Philippine people to the fortunes and interests of that country whose sovereignty is recognized with almost unanimity.

2. The health of the First Battalion in the United States, from March, 1904, until March, 1905, proves that native Filipinos, when properly fed and clothed, can serve in a temperate or even an Arctic climate with a smaller sick report, hence a greater percentage for duty, than most American troops. During the winter of 1904-5 this battalion was at the Louisiana Purchase Exposition, on guard duty over the government property. The temperature was lower than had

been experienced in St. Louis for twenty-five years. Seven times between December 26th and February 15th the mercury registered below zero, and for two days was 18 degrees Fahrenheit, at the camp of the battalion. Notwithstanding a camp experience at the Exposition of ten months, among a population gathered from all corners of the globe, surrounded by saloons and cafés where intoxicating liquor was easily obtained, and exposed to the vicious presence of the inmates of a large city's dens of vice, the average sick report from April 17, 1904, to January 1, 1905, was only about two per cent. and after January 1st about five per cent. At Fort Thomas, Ky., guard duty was done when the ground was a sheet of ice for two weeks, and at Washington, the battalion in heavy marching order marched from the Pennsylvania yards to Fort Myer, Va., in three inches of snow.

Only two deaths occurred among 417 enlisted men within the fifteen months of absence from the Philippines, and the companies went to the States without physical examination and the weeding out of disabled or sickly men before embarkation. One man died at Fort Bayard, N. M., of consumption, soon after arrival in the States, the disease having been contracted in the islands; and one died at Fort Thomas, Ky., of pneumonia, contracted at the Exposition in the winter.

During its absence from this division, this battalion served with parts of eight different regiments, Sixth, Ninth, Eleventh, Sixteenth and Twenty-seventh Infantry, and Seventh, Eighth and Ninth Cavalry, besides a few organizations of artillery, not including the troops at the Presidio of San Francisco, yet its sick report was always less than that of other organizations with which it served. Some fear was expressed that the stay of the battalion in the United States, to participate in the inaugural parade, would endanger the health of the men, and President's order for such detention was made over the objection of many whose opinions were worthy of consideration. Yet such healthful, even though very cold, ozone was inhaled by these Filipinos, that since their return they seem stouter, more robust and muscular and better able to resist disease than other native soldiers who remained in the islands. The average sickness of the entire battalion has not reached two per cent. during four months of field-service in Samar, under conditions as bad as can be found in the islands. On a recent expedition, which the writer made of two weeks' duration with the Fourth

Company, Macabebes, only one man applied for medical treatment, though the march was very difficult, over steep mountains, through and along rivers, waist deep most of the time.

Portions of the Twenty-fourth and Thirtieth Companies recently crossed the island of Samar with a column of the Sixth Infantry, being in the field about two weeks. No member of these native organizations was sick, and all marched back to their station, yet six out of about fifty members of the Sixth Infantry were left in hospital on the other coast, as they were unable to march back.

As an instance of the immunity of natives from diseases which attack Americans may be cited the experience of this battalion at Cape Connell, Samar, in June, 1905. Sent there hurriedly to re-enforce the troops operating against hostile Pulajans, the companies were temporarily quartered in vacant barracks. There being no cots nor mosquito bars at the post for this battalion, the men slept on the bare floors for three weeks while awaiting orders for field-service. On account of a scarcity of water cans for distilled drinking water, men had necessarily to drink unboiled cistern water, as no vessels for boiling water could be procured. An epidemic of dengue fever had afflicted the garrison for three months, the hospital was crowded, and sickness had visited the quarters of nearly every officer's family; a swamp lies close to the post and mosquitos were numerous and enterprising. According to all the theories of disease inoculation by mosquitos, the mosquitos of Camp Connell should have been charged with the germs of fever and ready to inject them into the fresh blood of these Filipinos recently returned from the States.

Nevertheless, in spite of these unavoidable departures from prescribed sanitary precautions, less than a half dozen cases of fever have occurred in the battalion, and the sickness from all causes has been far below that of American troops at the same station, all of whom have had iron bunks, mosquito bars, sufficient distilled water, ice, and other measures for prevention of disease. Venereal disease, which is perhaps the most common trouble among American troops in this division, is very rare among the scouts. In the field our men sleep in wet clothing, on the ground or upon beds of leaves, without mosquito bars or head nets, yet seem to suffer no inconvenience and incur little or no sickness. American soldiers cannot endure similar exposure without the penalty of a heavy sick report.

The employment of native troops in Manchuria, Alaska, or even Panama, would necessitate less hospital care and involve less expense for nursing than the employment of a like number of Americans under similar trying conditions.

3. While the Filipino is no saint, the virtue of patience, at least, may be attributed to him without flattery. Amid depressing circumstances, at isolated stations, in the field with half, or less than half, of the ration, exposed to cold or wet weather, the Philippine scout, instead of grumbling, seeking a change of station or applying for admission to the sick report in order to avoid disagreeable duty, cheers himself by singing, smoking or gambling; and if he has opinions about the apparent neglect of his government or his officers, does not express them, nor grieve over the uncomfortable situation. If the column does not halt for a midday lunch he may think a great deal, but he does not talk about it for the hearing of his officers. If he miss supper at night while on post, and through the forgetfulness of a cook, no quarrel ensues, but he hopes for breakfast next day. Unless an officer personally watches his men to see that each receives what is due, many cases of genuine complaint warranting correction may pass unnoticed. Free from the sense of personal rights and privileges so conspicuous in the American accustomed to prate of his independence, the Filipino, through a training of centuries of subjection to authority, while he knows what should be furnished him, does not repeatedly remind his superiors of such knowledge in the unpleasant situations in which it is impracticable to procure for him *all* that the government authorizes.

While it is believed no soldier is braver in action than the American, the Filipino, being Christian in religion and fanatic by nature, looks upon death as an act of God, which he is unable to postpone by his personal effort, whether by prevention of disease or avoidance of wounds in battle, and when properly encouraged and led into action, is quite careless of results to himself. This stoicism is one of the best traits of the soldier, and promises to make the Filipino the most useful in profession of arms.

4. The economy arising from the use of native troops is a matter seldom given careful consideration. The Philippine scout receives half the pay of an American soldier of like grade, excepting the increase of pay for continuous service or reenlistment. By law he might be paid as much as the American

soldier, if so authorized by the War Department. Thus far, the pay seems to be sufficient, because the wives of married soldiers support themselves and their children without much or any help from their husbands, and would do so, accordingly to the custom of the country, even if their husbands were not in the army. But some inducements should be offered former soldiers to remain in the service. An application of the writer, submitted in September, 1904, that Filipinos be paid fifty cents per month extra for each month of the third, fourth, etc., years, or in other words, just half the increase of pay authorized for American soldiers, was denied by the War Department, as a result of which many men refused to re-enlist at St. Louis when their enlistments expired. There seems no good reason why these natives should not be encouraged to remain in the service, and their added usefulness be recognized by a slight increase of pay. After a native soldier has learned some English and acquired proficiency in drill, we should make it desirable for him to remain in the service, as his influence over other natives in or out of the army and his usefulness in their instruction has been enhanced more than is represented by the paltry half-dollar per month added to his pay.

Aside from the saving of service pay, which should be abandoned, let us consider how much is saved by the half pay of Philippine scouts. In each company the difference is expressed by the table following, assuming for comparison that American companies have the organization of scout companies:

GRADES.	AMERICANS FOREIGN SERVICE.	PHILIPPINE SCOUTS.
First sergeant (1).....	\$30.00	\$15.00
Sergeants (7).....	151.20	75.60
Corporals (10).....	180.00	90.00
Cooks (2).....	43.20	21.60
Musicians (2).....	31.20	15.60
Artificer (1).....	18.00	9.00
Privates (81).....	1,263.60	631.80
Total, enlisted men (104).....	\$1,717.20	\$858.60

A saving of \$858.60 monthly for each company, or \$42,930 for the fifty companies at present organized, for each month of their service.

Add to this the difference of pay of seven battalion sergeants—major (seven times \$15 or \$105), and we show an economy of \$43,035 monthly, or \$516,420 each year for the fifty

companies, as a result of garrisoning only a part of these islands by native troops.

The law now authorizes the enlistment of 12,000 natives, instead of 5200 as at present. If the authorized strength, 120 companies of 100 men each, were enlisted, and thirty sergeants-major of battalion were appointed, the economy of substituting these for American troops would amount to \$236,834 per year in the item of pay alone.

In the matter of clothing allowance there is a further saving, since the scout receives but \$2.70 each month, or approximately \$97.20 during the enlistment of three years. For each enlistment the American private receives a credit of \$136.44 when supplied with the old uniform, and \$157.98 when supplied with the new uniform. Without adding the increased difference of non-commissioned officers' allowances, this shows an economy of \$39.24 per man, assuming that all American troops in the Philippines are granted allowances for the old uniforms only; of course, the economy will be greater when regiments to which the new uniforms have been issued in the States return to the islands. In a company of 104 men, all of whom among the scouts receive the same clothing allowance, regardless of grade, this represents \$4,080.96 saved on clothing alone during an enlistment of three years, or for the 5200 men at present \$204,048, and for the number authorized, \$470,880 in an enlistment, and one-third of this as an average saving each year, or \$156,960.

When it is remembered that American recruits deserting within the first year are invariably indebted to the United States because of the large amount of clothing necessary the first six months, that the allowance granted the first six months is much greater in proportion than that granted the scout, that desertions among American companies amount to 10 per cent. annually, while from Philippine scouts almost none desert, the clothing money saved by the enlistment of Filipinos is much increased, but the exact amount could not be shown without reference to the clothing accounts of all infantry and cavalry organizations that have served in the islands since 1901 and of the same accounts of Philippine scout companies. In this battalion no desertion has been recorded since the original organization of its companies, four to six years ago; hence no loss whatever has occurred to the government through the clothing allowance of the enlisted scouts, while most of

them have frequently been charged on the pay-rolls for clothing drawn in excess of their allowance.

It may be asked if this slight allowance is sufficient for the scout, and enables him to present a creditable appearance in uniform. It is not sufficient for him to procure all the articles he requires even in the islands. Yet so great is the vanity of the Filipino that he willingly contributes from his half-pay for his clothing, procuring from the quartermaster all articles except khaki clothing, and having that made by Chinese or native tailors, in order to obtain a better fit than would be possible by cutting down the large sizes issued by the quartermaster, and a better class of material than that issued by the government. The frequent field-service required of the scout organizations soon wears out their shoes, leggins and stockings, and the renewal of these alone is almost sufficient to exhaust the allowance. For service in a temperate climate in war, an increase of the clothing allowance would be necessary, to cover the issue of blankets, woolen clothing and overcoats, but for garrison and field-service in the islands 12,000 natives would save the government about \$150,000 in the item of clothing alone.

The actual cost of the garrison, field and Filipino rations as issued in the islands is \$.195, \$.208 and \$.3107 respectively. While reams of paper might be covered with unanswerable arguments for the issue of the same ration to one soldier, whether he be white, brown, black or yellow, such subject is not the purpose of this paper. So, assuming that the regulations are not amended in this respect, a native force of 12,000 men, as at present authorized, would replace the same number of Americans and save to the government \$281,634 in a year over the garrison ration and \$338,574 in a year over the field ration. As most American troops in this division draw for most of the year the garrison ration, their periods of service in the field being brief and spasmodic, when rations are carried from the company supply, it may be assumed that the subsistence of this native force would cost about \$300,000 less than that of a similar American force.


[TO BE CONTINUED]

EXTRACTS FROM REGULATIONS FOR MANEUVERS FOR THE SWISS ARMY.

TRANSLATED BY

LIEUT.-COLONEL ALFRED C. SHARPE, THIRTIETH INFANTRY.

GENERAL RULES.

IELD-EXERCISES to which the name of maneuvers is given constitute the highest and most advanced instruction of troops in peace. In maneuvers the director is always senior to the commanders of the two contending forces. These commanders have the highest latitude in making their plans and dispositions, limited only by the military situation established by the director. The general rule is that commanders operate only with troops actually present. The use of imaginary or outlined troops will be the exception. Should it be found necessary to use imaginary forces they will be considered only as reserves; this to avoid impossible situations. When indicated or imaginary troops are employed it is best to assign them to the defensive, the problem terminating in an abandonment of the defensive position. A program of successive problems based on divers tactical situations is announced, and the maneuver requires the solution or elaboration of a supposition which places each of the adversaries in a given military situation and leads him to act the part appropriate to his situation.

The simplest and shortest method of formulating problems, suitable for small bodies of troops, consists in locating each adversary with reference to the command (or army) to which he is supposed to belong, and imposing upon him a task developing this situation. This locating ought to be concise but clear; it ought to contain a complete description of the situation in which the unit finds itself at the beginning of the maneuver (Initial Situation). The task may be given in the form of a written order, in which case the "situation" is given at the head of the order. In exceptional cases the task may be so formulated that the decision to be taken by

the commander has already been indicated by the director, so that the commander has only to execute it according to the requirements of the situation. (This is the situation in which an officer might find himself when suddenly called upon in campaign to replace one of his superiors.)

For the maneuvers of large bodies a general military situation is supposed, and will be the same for both sides engaged. It will indicate to them that which they would in reality be able to learn of each other in actual war. Each side is also given a "Special Situation" which indicates the task imposed upon it, but not the manner of performing it. It will rarely happen in war that a small body of troops will act independently, except in mountain warfare. It will therefore be necessary with brigades or smaller units to suppose them in tactical combination with larger imaginary bodies. Only strategical unities possess a wide latitude of operations. Maneuvers of large bodies gain in instructive value in proportion to the latitude which their commanders enjoy in giving independent direction to the movements.

SPECIAL RULES.

In addition to the supposition, every program of maneuvers contains certain directions relating to organization and administration, as follows:

1. The strength and composition of the two forces, as well as the designation of their commanders, written on the margin at the top of the "Special Situation."

2. The starting point of each force from which the exercise commences.

3. The particular uniform or distinctive badge which each side will wear; the amount of ammunition which will be allowed; regulations concerning rations, disposal of refuse, especially the evacuations of the sick; regulations concerning trains, and the designation of officers who will act as umpires.

It will also be necessary to fix the exact hour of commencement of each exercise by each party. Troops must not move before the designated moment. The two sides will be designated either as the "Eastern Army," "Western Army," etc., or as "the Reds," "the Whites," etc.

When imaginary forces are employed infantry will be indicated as follows: A red marker represents a section or company, or small subdivisions may be used to represent a

larger. Artillery is marked by yellow marker flags somewhat larger than those used for infantry, or by discharges of pieces, or by small bodies or detachments the same as infantry.

It is better not to indicate cavalry, but to apportion it between the two adversaries according to its actual strength. In combined maneuvers (of the three arms) artillery will indicate by flags the objective on which it is directing its fire—red for cavalry, white for infantry, and red-and-white for artillery. Machine guns will also in like manner indicate their targets.

The director may retain out of action and at his disposal a certain fraction of troops and throw them into action on either side at any stage of the maneuver. These fractions would ordinarily be cavalry or artillery which, owing to their mobility, can arrive suddenly and quickly at a chosen point. The director can also influence the action by sending information of developments to either side of the supposed arrival of other troops, etc. Care however will be taken to avoid any situations which would not conform to all reasonable possibilities.

UMPIRES AND THEIR DUTIES.

The director communicates the General and Special Situation in writing to the commanders of the two sides in sufficient time to enable them to make their preliminary dispositions and send copies of their orders to the director. For large bodies these preliminaries will take place the evening before the maneuver is to begin. Copies of the General and Special Situations, and of the orders of both sides, are furnished to each umpire and to invited officers; also copies of all instructions emanating from the director. The director is the chief umpire. He is assisted by certain superior officers as umpires. Umpires wear a special uniform or badge which marks them as neutrals. Invited officers are similarly designated. In larger bodies every column which has a special task to perform should be accompanied by an umpire. Special umpires should observe the action of independent cavalry, advance guards, outposts and artillery combats. During minor maneuvers each umpire will be provided with one orderly; in larger maneuvers he will need several. Bicyclists will also be detailed for duty with umpires to facilitate their communication with the chief umpires.

It is the duties of umpires to determine the effect of the fire of the two sides, and to watch the action so as to avoid impossible situations. To this end they communicate the situation to the commandant of the forces, which will require him to act conformably to the situation. When the two sides come into actual contact the umpire present must decide which has the advantage in the immediate tactical situation. They report immediately to the chief umpire any important decisions which they may have made. Umpires may call upon any commander for the information which they need. Commanders will furnish such information and they will also inform their superiors and neighboring troops of all decisions which umpires have made affecting themselves. Where several umpires are present the senior will render the decision. Umpires' decisions have the force and effect of orders from the chief umpire. The decisions of umpires are intended to take the place of conditions which arise in war, but which are lacking in peace. They base their decisions upon the following considerations:

DEFENSIVE WORKS.

They will take account of defensive works only in so far as they have been actually finished; but if conditions are such as to prevent actual work then account will be taken of only such work as could have been accomplished in the given time and with the means available. Credit for such work will be reported to the opposing party if he may be supposed to have discovered it by reconnaissance.

EFFECT OF INFANTRY FIRE.

In determining the effect of infantry fire due consideration will be given to the number of rifles in the firing-line, the correctness in estimating distances, the use of cover, the visibility and density of the target presented, the fire discipline and the element of surprise as well as the moral effect which the enemy produces. Considerable weight must be given to enfilade fire. (In determining probable results reference must be made to the Swiss Infantry Drill Regulations relative to the effect of fire at different ranges at different targets.)

When two lines of skirmishers come within 400 meters of each other without cover the action must cluminate without delay. The assailant must take up the charge or one of the sides must retreat.

BAYONET ATTACK.

To determine the result of a bayonet attack account must be taken of the preparation which has been made for it by infantry and artillery fire; also of the fresh troops, if any, which arrive to re-enforce either side; of the manner in which the attack is executed, and whether the enemy's lines have been attained by a purely frontal attack or by a turning or enveloping movement.

CAVALRY AND ARTILLERY ACTION.

Cavalry charges against unbroken infantry of good strength will cost heavy losses, except where executed by surprise. Artillery exposed to infantry fire at less than 1000 meters cannot go into battery except under good cover. Artillery exposed at less distances speedily loses its mobility. Artillery is not able to advance against hostile infantry at distances under 1000 meters except when its own infantry has obtained a superiority of fire over the enemy's infantry, and when the fire of the enemy's artillery has been sensibly diminished, or when the movement is sufficiently covered by friendly artillery which remains in position.

To determine the result of a charge of cavalry against cavalry it is necessary to take into account not only the relative strength, but also the positions of the opposing forces, and the manner in which the charge has been led. The umpire may give the victory to the weaker side if it has surprised the enemy during a deployment. Above all, the charge must be made vigorously and in good order. If the movement succeeds in reaching the enemy's flank it will increase the chances of victory.

A battery which maneuvers in face of a cavalry charge will be considered as out of action (disarmed) unless it is covered by other troops. Artillery in battery is always weak on the flank where it is not covered.

A frontal attack by cavalry against artillery may succeed when the cavalry has sufficient depth and echelon.

EFFECT OF ARTILLERY FIRE.

In determining the effect of artillery fire, account must be taken of the element of surprise, if any, the use of the terrain to increase the effect of own its force and for cover; the ease or difficulty of observation of the shots, both its own and those of its enemy; the duration and intensity of the fire; the number of batteries firing on the same object, and the effect pro-

duced by the fire of the enemy. Enfilade fire will always obtain the best results. When the superiority of one of the parties in artillery combat is manifest from the first the umpires can decide the contest very quickly.

The flags which are borne by troops or used to mark their position should be placed or borne in a conspicuous manner so as to be visible to the enemy.

TROOPS ORDERED OUT OF ACTION.

When it is evident that a command or unit has lost such a percentage as would, in action, render it unable to continue the struggle, the umpire is authorized to order it temporarily out of action. He will not order it out of action permanently or during the entire maneuver, as it would thereby be deprived of the remaining instruction. Troops ordered out of maneuver will withdraw outside the field of action. When the time for which they are out of action expires they may be used as reserves, but not otherwise.

In general, umpires will have to decide whether an organization can advance further, whether it should retire and if so to what point, or whether it can hold its present position.

When a decision is sought, the defender not conceding his defeat, he will bring his command to order arms. The assailant halts before the position and also comes to order arms; they then await the decision.

Cavalry attacks against infantry ought to halt fifty meters before the enemy's line. But this does not mean that cavalry may not penetrate, if possible, through the intervals which may be presented in the enemy's line.

The umpires will decide which side has the advantage and will detain the victor a sufficient time to reorganize his command before allowing him to take up the pursuit. When both sides have been thrown into disorder the struggle will be suspended long enough to reorganize both commands.

SIGNALS BY CHIEF UMPIRE.

The chief umpire can give such signals as may be necessary to maintain the direction of the maneuver in his own hands. When he gives the signal "Attention—Halt!" all troops halt in place in whatever formation they may be, cease firing, and await further orders.

During maneuvers of small bodies, when it is possible to

arrest badly executed movements, the chief umpire gives the signal, "Halt!" then calls the commanders to the front and gives his decision, comment or instructions.

At the signal, "Rest" the infantry stack arms, all mounted troops dismount and the men rest in the places where they happen to be. In the absence of orders to the contrary they may get water for horses and men and may also feed the animals.

At the signal, "Attention—Officers assemble," all mounted officers and those unmounted near by assemble near the chief umpire to hear his comment or instructions. In maneuvers of a division or army corps all superior officers, including battalion commanders, accompanied by their staff-officers, assemble near the chief umpire. The umpires also assemble at the same time and place. To resume the exercise the chief umpire gives the signal "Attention—Forward" after the commanders have rejoined their respective commands. To terminate a maneuver the signal "Attention—Assemble" is given and all troops are marched to their proper camps or quarters.

TERMINATION OF MANEUVER.

Every effort will be made in maneuvers to see that the exercise is brought to a close in a manner as closely conforming to actual war as possible. The chief umpire seeks to obtain this result by sending timely communications to the two opposing commanders, which will lead one to retire and attempt to escape and the other to pursue. Where small bodies are engaged these instructions may be given in person on the field during the movement. The chief umpire may also stop the movement at any point to make comment or criticism, and may require one or the other of the parties to retire or take up a new position according to the situation as it then presents itself.

The suppositions (General and Special Situations) and the tasks for the following day are delivered as soon as the two combatant forces have returned to their respective camp grounds. Comment or criticism is made in general immediately after the termination of the exercise.

NIGHT MANEUVERS.

When the hostile lines are maintained in position during night the lines must be sufficiently separated to avoid continual alarms at the outposts; but enterprises may be under-

taken during the night by either side, first sending information of the proposed undertaking to the chief umpire.

In the absence of orders to the contrary outposts always remain ready to resume the action at a moment's notice.

Troops not on outpost duty may go into cantonment or bivouac. Care will be taken to put them under roof in inclement weather. If it be found necessary to shelter troops between the lines the chief umpire will declare these places neutral, or may withdraw the outposts and suspend the operations during the night. During unfavorable weather, in general, the exercises may be suspended, but while they do continue they should be carried out in all respects as they would be in actual war.

COMMENTS BY CHIEF UMPIRE.

Criticism by the chief umpire should be concise, without undue severity, and solely for the purpose of instruction. It is not limited to setting forth omissions or errors. When he does not agree with the method pursued, the chief umpire will indicate how, in his opinion, the dispositions should have been made.

When one of his superiors is present the chief umpire will invite him to express his views.

REPORTS BY UMPIRES.

Reports by umpires at the close of the maneuvers are of great value to all commanding officers and contribute to the progressive instruction of the whole army.



NAPOLEON'S APPOINTMENT TO THE ARMY OF ITALY.

BY COLONEL ROBERT W. LEONARD, (LATE) 12TH
NEW YORK VOLUNTEERS.



VERY interesting article in the September number, describes Napoleon as arriving at the command of the army in Italy through military merit.

This paper is written as a companion piece to present another point of view, and to show that at the date of Napoleon's assignment to this command he had given no evidence of military talent—the talent was latent.

Some authors represent this wonderful man as an educated, scientific soldier and as one whose transcendent abilities were early recognized, and that to them alone did he owe his advancement. Stress is laid on his having been educated at a military school. There are schools for soldiers, there are none for generals; like poets, they are born, not made.

Let us trace Napoleon's record from the time that he left school till he married and assumed command of the army in Italy.

No man ever lived whose career has been subjected to so much investigation and about whom so much has been written.

The later writers have diligently searched records, archives, memoirs and letters.

Levy (*Napoleon Intime*) is such an indiscriminate and ardent admirer that the shortcomings and moral eccentricities of his hero appear trivial as he describes them.

He thinks that the downfall of Napoleon should be attributed to his tender heart, and to his solicitude for his ungrateful friends and disreputable family.

Watson has been a diligent compiler of facts and anecdotes relating to Napoleon; these he relates whether they make for or against his subject.

One is constrained to believe that Mr. Watson's purpose was rather to tell the effete monarchies of Europe what he thought of them than to add to the sum of knowledge about Napoleon.

Professor Sloane and Dr. Rose are animated by a sincere wish to help the world to understand this meteoric genius whose ambition aspired to compel the world to his will.

After four years at the very inferior school at Brienne, where nothing was taught but the humanities and mathematics, Napoleon went to a military school in Paris. His school days ended in August, 1785. He was then barely sixteen, an age at which one may hardly be said to have laid even the foundation for an education.

He chose the artillery branch of the service. The artillery of that day could not be called scientific; had it been scientific a lad that was nearly at the foot of his class would not have been appointed to it.

His biographers describe him as an omnivorous reader, excepting of such books as pertained exclusively to his profession.

He appears to have had no liking for the profession of arms; he wished to be an author, and was constantly at work with his pen, writing articles that failed when they were written for competition, and that found no publishers when written for the public.

The publisher of the "Supper of Beaucaire" was not paid till Napoleon became consul.

He detested the drudgery and the routine of army life, and was negligent and insubordinate to a degree that would not have been tolerated at any other period than that immediately preceding the Revolution.

In the chaos and confusion that then reigned he managed to retain his commission, notwithstanding his dismissal by court martial.

Napoleon would have suppressed all knowledge of his life previous to Toulon—up to that time his record was simply disgraceful.

He was put under arrest for the incompetence that he displayed in superintending some work on the fortifications at Auxonne.

His talent for intrigue was marked. He was active in political clubs wherever he was stationed.

On June 14 1791 he was transferred to the Fourth Artillery. His total service to this date was five years and nine months; he had been absent with or without leave something more than half of this time.

He was almost without a profession, for he had neglected that of a soldier, and had failed as an author and as a politician in Corsica.

He was a citizen of the world—a man without a country—his birthright was gone, for Corsica repelled him and he hated France.

About this time (1793) through Salicetti, a fellow Corsican, Napoleon became acquainted with the younger Robespierre.

These two, with Barras and Freron (later an admirer of Pauline Bonaparte) were among the commissioners at Toulon.

Salicetti and Robespierre were doubtless instrumental in having their friend and fellow Jacobin, Bonaparte, employed at Toulon.

In the attack, September 7, 1793, Dommartin was wounded. The command of the artillery devolved on General Duteuil who effaced himself, dreading the responsibilities.

Napoleon, after his arrival on September 16th, appears to have been the active artillerist at Toulon. The first anecdote that we have of him is that he thought a battery was planted out of range. "Let us try a proof shot," and behold, the shot fell midway. Some of Napoleon's admirers regard this as an evidence of genius; it is only an evidence of common sense that any enlisted man might have.

If the capture of Toulon was the point of departure in Napoleon's career, it must be remembered that the part he took in this feat of arms was not regarded at the moment as anything extraordinary.

Dugommier's official report of the siege, written after the capture of Toulon (December 17th), says nothing laudatory about Napoleon, so the report of the commanding general could not have assisted him in obtaining command of the army in Italy.

Dugommier's report of December 1st, however, did say: "Among those who are most distinguished are the citizens Bonaparte, commandant of artillery; Joseph Arena and Cervoni adjutants-general."

On September 13th, three days before the arrival of Napoleon at Toulon, the commissioners wrote to the Convention: "We shall take care not to lay siege to Toulon by ordinary means when we have a surer means to reduce it—that is, by burning the enemy's fleet. We are only waiting for siege guns before taking up a position whence we may reach

the ships with red-hot balls, and we shall see if we are not masters of Toulon.

This would seem to dispose of the idea that there was no plan before the arrival of Napoleon.

On December 22d, at the same time as Arena and Cervoni, Napoleon was named general of brigade. The name of Bonaparte was hardly known at this time.

Marmont, also an officer of artillery, mentions him but once in his correspondence with his relatives, and when, in 1794, Junot informs his relatives that he has quitted his regiment to become an aide-de-camp to Bonaparte, his father writes: "Why have you left the Commandant Laborde? Why have you left your corps? Who is this General Bonaparte? No one knows him."

At this time the younger Robespierre offered him the command of the garrison at Paris in place of Henriot. Lucien Bonaparte reports that Napoleon discussed the appointment with him and his brother Joseph. Napoleon said it was not so easy to save one's head in Paris as in St. Maximin. That it was not time. That he would command Paris later.

In April, 1794 Napoleon was appointed general in command of the artillery of the Army of Italy. His share in the operations under Massena was restricted to handling the artillery.

Napoleon was next sent to Genoa on a secret political and military mission, with instructions signed by Ricord.

He acquitted himself of his confidential mission with much circumspection, but on his return to Nice he was placed under arrest and confined in Fort Carré, near Antibes.

On July 24th (tenth Thermidor), the Robespierres were guillotined, and Lucien and Joseph Bonaparte lost the positions Napoleon had obtained for them.

Ricord was replaced after the ninth Thermidor by Albitte and Salicetti. He hastened to Switzerland to avoid arrest.

From Fort Carré Napoleon wrote characteristic letters to Albitte and Salicetti, one letter ending with the following buncombe: "An hour later, if the wicked wish my life I will gladly give it to them, I care so little for it, I weary so often of it. Yes! the idea that it may still be useful to my country is all that enables me to bear the burden with courage."

After thirteen days' imprisonment Napoleon returned to Nice (August 24, 1794), and was appointed to command the

artillery of the expeditionary corps designed for Civita Vecchia. The expedition failed and was disbanded.

Napoleon's intriguing habits, his ambition, and the fact that he was one of the numerous Corsican exiles and adventurers, made him an object of dislike and suspicion to his superiors.

It was deemed advisable to transfer him to the Army of the West, engaged in putting down the revolt in La Vendée (March 29, 1795).

This service was distasteful and he determined not to obey the order which he received early in April while at Marseilles. He did not set out for Paris till May.

At this time there were more generals of artillery than could be employed. Napoleon was the last on the list in order of seniority. According to regulations, when one arm of the service was overmanned, the superfluous officers were transferred to another. Bonaparte as a supernumerary was, on June 13th, again ordered to the West, but as general of an infantry brigade.

According to Marmont Napoleon did not wish to engage in civil war under Hoche. It is probable that as he knew nothing about handling infantry or cavalry he was reluctant to give up his appointment in the artillery.

He certainly was willing enough a few months later to engage in civil war under Barras.

Armed with a medical certificate Napoleon applied for and received a leave of absence. The next step was to apply for mileage on the journey he had taken as far as Paris in pursuance of the order of March 29th to proceed to his post in the West. Following the precedents of his life he calculated the mileage, not from Marseilles, the place whence he started, but from the more distant town of Nice, increasing his mileage to nearly 2700 francs. He then secured an extension of leave till August 4th.

Napoleon formally refused to serve in the infantry. Barras and Freron interceded for him. All that they could obtain for him, however, was permission to remain in Paris without pay.

The Duchesse d'Abrantés describes him at this time as going about the streets "with an awkward and uncertain step, with an old round hat pulled down over his eyes, his hair badly powdered, ill-tied and falling over the collar of his coat. His

hands, long, thin and black, without gloves, because, he said, they were a useless expense."

Even in this dilapidated condition he was disappointed by the disdainful silence of Joseph's sister-in-law, Desirée Clary, whom he wished to marry. No wonder that the old soap-maker, her father, declared that one Bonaparte son-in-law was enough. He probably had the whole Bonaparte tribe on his hands in the critical periods of their affairs.

Levy says that Boissy d'Anglas, whom Napoleon hardly knew, said to Doucet de Pontecoulant, the member of the Committee of Public Safety charged with the direction of military operations, "that he met yesterday an unemployed general who dreamed of the Army of Italy, and spoke understandingly. He can, perhaps, give you some good advice."

Napoleon was sent for. Pontecoulant found that notwithstanding his extraordinary appearance he reasoned well, and he told him to put what he had said in writing and give it to him.

Some few days after, Pontecoulant meeting d'Anglas said: "I have seen your man; he is a fool apparently and has not returned." (This is probably the time when Junot was making a legible copy of Napoleon's memoir.)

The memoir, once received, Napoleon was installed in the topographical bureau of the Committee of Safety, August 20, 1795.

Pontecoulant was himself about thirty-six years of age and was at a loss to understand how Napoleon could be a general at twenty-five. However, he wished to do something for him, but Napoleon insisted upon being restored to the artillery. Pontecoulant discussed the matter with Letourneur, who held that Bonaparte's pretensions were inadmissible, that his elders in the scientific branches, even Carnot, were only captains, and that Bonaparte was too ambitious. Nevertheless, when Letourneur succeeded Pontecoulant, he proposed that Napoleon should remain in the War Office.

At this moment there was a serious tension in the politics of Eastern Europe, and the French saw an opportunity to strike Austria on the other side by an alliance with Turkey. The latter country asked for the appointment of a French commission to improve their artillery service.

Bonaparte, having learned the fact, sent in an application that he should be appointed the head of the commission, en-

closing laudatory certificates of his uncommon ability from Pontecoulant and Debry, a newly-made friend.

The mission was obtained, and Napoleon made a list of the officers he wished to take with him.

On the same day that one committee appointed Napoleon to this mission to Turkey, another committee struck his name from the list of generals in the service for not obeying the order to report to the Army of the West for duty, and for trying to draw pay on fraudulent vouchers. He had drawn mileage from Nice to Paris when he had only journeyed from Marseilles. He claimed pay for two horses sold by him when he went to Corsica in the spring of this year. He had no horses.

Then he looked up his protectors, Barras, Freron and Mariette—the most important was Barras, in his quality as a member of the Committee of Public Safety.

Mme. Tallien appeared next on the scene. Cloth for uniforms was issued to generals on the active list. Napoleon applied for his allowance and was refused.

Mme. Tallien gave him a letter to M. Lefeuve, ordnance officer of the Seventeenth Division, and a few days before the famous day of Vendemaire, the Commissary issued the cloth. To obtain anything from Barras one must first pay court to Mme. Tallien.

The critical position of Napoleon compelled him, despite his shabby appearance, to appear at the house of the goddess of the day, and to assume a gaiety that he did not feel.

According to Ouvrard "he pretended to be a fortune-teller, seized her hand, and committed a thousand follies."

Speaking at St. Helena of these days, Napoleon said: "I had no social habits, going only into the set at the house of Barras, where I was well received. I was there because there was nothing to be had elsewhere."

"I attached myself to Barras because I knew no one else. Robespierre was dead. Barras was playing a rôle. I had to attach myself to somebody and something."

At this time he met Josephine, also belonging to the Barras harem. There were at one time prints of Mme. Tallien and Josephine, in the altogether, dancing for the diversion of Tallien.

On October 4, 1795, (thirteenth Vendemaire) the Section Lepelletier declared itself in insurrection. This section comprised the most wealthy and influential of the mercantile class.

General Menon, in command of the Convention forces, was ordered to disperse and disarm the insurgents; this he failed to do. Watson says that Napoleon, who was observing the disorder, exclaimed to Junot "that if the insurgents would let him lead them he would place them in the Tuileries in two hours and drive out the Convention."

Menon was in arrest. The Generals Desperrieres, Debor and Duhoux were dismissed.

The crisis called for a man of skill and determination. The Convention appointed Barras to the command with Bonaparte, Brune, Carteaux, Dupont, Loison, Vachot and Vezu to serve under him. A manuscript written by Bonaparte, now in the French War Office archives, proves that it was Barras who gave the order to fetch the cannon from the camp at Sablons.

It is also said that when Barras was invested with the supreme command Carnot advised him to appoint an associate general. But who? said Barras. Carnot named Brune, Verdieres and Bonaparte.

Barras did not care for either of these, but Freron, the lover of Pauline Bonaparte, insisted on his choosing Bonaparte, and went in search of him at once and brought him to Barras.

Barras always insisted that Napoleon at this moment was dicking with the insurgent sections.

Jung says, "like a true condottiere he sought to sell his sword to the highest bidder."

This was the twelfth Vendemaire (October 4th). The next evening Barras announced to the assembly the victory of the troops of the Convention.

The next day Napoleon was promoted general of division, and on the 18th his name was called in the Convention in a public session. "Do not forget," said Freron, "that the artillery general, Bonaparte, named on the night of the 12th and 13th, had only the morning of the 13th to make his skilful dispositions, the effects of which you have seen."

On October 26, 1795, he was named general in chief of the Army of the Interior. General Duvigneau was chief of staff; his aides were Junot and Lemarois, to whom were added later, Marmont and his young brother Louis.

General Thiebault says: "Shortly after this Napoleon went to the office of the General Staff and went up to General Kreig, an old officer with an absolute knowledge of military detail and author of a soldier's manual. He made him take a seat beside

him at the table and began questioning him about service and discipline. Some of his questions showed such complete ignorance of the most ordinary things that several smiled.

At this time he knew nothing about the general service.

Napoleon must have been able to dip into the treasury at once for we find him writing to his brother Joseph: "The family lacks for nothing. I have sent them money, etc." On November 17th he writes Joseph: "I have received 400,000 francs for you. I have given it to Festh for you. The multiplicity of my affairs gives me little time to write. I have sent the family fifty or sixty thousand francs." He tells Joseph to come to Paris and he can have any position he wishes.

We now find Napoleon going a good deal to Barras' house, which was presided over by Mme. Tallien. "The house was always full of company that played for high stakes; the games were whist, faro, *vuigh-et-un*, etc."

It is with Mme. Tallien that Napoleon again meets Josephine, the widow of Vicomte Beauharnais, from whom she had been divorced.

Levy says that Napoleon's detractors insist that Bonaparte's love for Josephine had but one aim—to obtain the command in chief of the Army of Italy. It is but just to say that Napoleon was always ready to marry; first it was Mlle. Clary (afterward Mme. Bernadotte and later Queen of Sweden), then Mme. Permon, and now it is Josephine.

Her reputation was of no consequence to him. He could not have been under any illusions in regard to her history and present mode of life. Josephine was but lately out of prison. She had no visible means of support. Her children were apprenticed to manual labor—Eugene to an upholsterer and Hortense to a milliner.

In fact, Napoleon did not much resent her subsequent infidelities; the only revenge he took on Captain Charles, her most assiduous lover, was to have his name stricken from the army list.

He disliked the notoriety of his sister's amours, but was indifferent to the fact.

De Caston, in "*Premières Aunes de Napoleon*," Vol. II, p. 347, and Jung, in "*Bonaparte et Son temps*," Vol. III, p. 117, quotes a letter from Josephine which says: "Barras assures me that if I marry the General he will obtain for him the command of the army in Italy."

Watson says: "Yet calculation played its part in Napoleon's marriage as it did in everything he undertook. He was made to believe that Josephine had fortune and high station in society. He weighed these advantages in considering the match."

Both the fortune and the social position would be valuable to him. In fact, Josephine had no fortune nor any standing in society. Men of high station were her visitors: their wives were not.

All the evidence tends to show that Barras arranged the match between his two hangers-on, and that the appointment to the command of the army in Italy became involved in the negotiation, and was, in fact, Josephine's dowry.

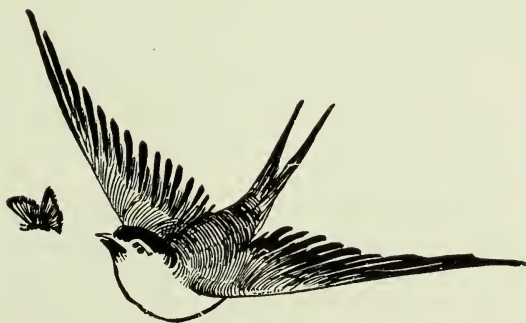
Perhaps the extravagance of the languid creole was as trying to Barras as it became afterward to Napoleon.

Napoleon received the coveted command March 7, 1796. Two days later the civil marriage took place; there was no religious ceremony till December 1, 1804.

When Napoleon signed the register he signed himself Bonaparte for the first time, and presently departed for Italy.

There the lurid part gave way to the effulgence that was in store for him.

The sunburst of the new dawn appeared from beneath the horizon to dazzle the world so long as history records the past.



THE NON-COMMISSIONED OFFICERS; THEIR EFFICIENCY AN ESSENTIAL FACTOR IN OUR ARMY.

BY LIEUTENANT GUSTAVE A. WIESER, FIFTEENTH INFANTRY.

I. SELECTION.



IN selecting the theme for this discussion the writer had in mind the non-commissioned officers of a company of infantry. The regimental and post non-commissioned staff-officers are, as a matter of fact, efficient men, with some few exceptions here and there; the former, selected by the regimental commander for their value as soldiers and special qualities as non-commissioned staff-officers, and the latter must pass an examination as to their mental abilities and knowledge of the particular staff department to which appointment is desired, in addition to having seen service of some length as company non-commissioned officers.

But the corporal in a company, when originally appointed, is acquiring his first experience in the way of exercising authority. He is chosen by his company commander, supposedly for his superior military bearing and intelligence. Sometimes a newly re-enlisted soldier comes well recommended to a company, producing one or more excellent discharge certificates, which show that he has held the grade of corporal, sergeant or even first sergeant. In cases of this kind, the captain, quite reasonably so, gives such men the preference, and recommends them for appointment when the next vacancy occurs.

At other times, however, it becomes necessary to select from entirely new material, this when men of experience are not available, or if available, they do not meet the expectation of their company commander. In these instances the fixture must show whether or not the corporal is fitted for the position to which he is appointed.

When an organization is composed mostly of new men, with little or no service, the selection of non-commissioned officers is by no means an easy matter. Although the regulations provide for the appointment of lance corporals, in order to test the ability of privates as non-commissioned officers, it has proved to be the exception, rather than the rule, that this provision is taken advantage of.

Before the Spanish-American War broke out it was not a commonplace affair for a private to be advanced to corporal. A man would sometimes complete his five-year enlistment, or, later on, the three-year term, without having had the opportunity for promotion, not because he was not capable for the duties of a corporal or sergeant, or was unfit on account of his record, but simply because the vacancies were so few. This is readily explained when it is remembered that at that time the non-commissioned complement, consisted, as a rule, of men who had been in the service two, three or more enlistments, and when under these conditions a man was once appointed corporal and later on promoted sergeant, he appreciated the value of his chevrons too highly to relinquish them and try his luck over again in another organization.

These non-commissioned officers would re-enlist, time and again, in the same company, and although the writer does not intend to be understood that there were no exceptions to this rule, for there were, yet, on the whole, men were more attached to the command in which they had first learned to be soldiers and re-enlistments in the same organization were considered a matter of course.

2. QUALIFICATIONS.

In order to be a successful non-commissioned officer the man recommended by the captain ought to have a clean record, not only according to the company record books and muster rolls, but also in his unrecorded conduct while in the company. The latter, however, is in most cases unknown to the company commander as it refers to the conduct of the private when in the squad room, amusement room, etc., or when out of barracks. To the captain a man may seem very desirable as corporal and yet he may be utterly disliked by the majority of the company, for personal reasons well known to every member of the organization, although he may never have committed an offense which necessitated a trial by court-martial. In short, the prospective corporal should be well thought of throughout the company, and this general impression should be founded on his manly bearing, cheerful obedience to duty at all times and genuine comradeship displayed in the intercourse with his fellow privates.

He should be energetic and painstaking in his duties. A private who is seen standing idle when the others are at work,

who always manages to be without a broom or shovel when the men are called out to police the grounds, who apparently does not hear the calls of the members of his company when he is on duty in the dining-room during meal hours and articles of food are required, or who, when on fatigue duty, is extremely slow and obviously lazy, and purposely remains in the background when men are called to the front and are being assigned to certain tasks, that man does not make a suitable non-commissioned officer, for one who is wont to shirk his duties when a private will surely do so when called upon to fill the position of a higher grade.

The selected private should thoroughly understand his drill, have an adaptableness for all military exercises, be able to drill a squad satisfactorily, or act as guide; in fact, these things should come natural to him, or at least he ought not to experience difficulty in learning them.

He should be intelligent, have a common school education, be fully alive to his duties and responsibilities and look forward to the non-commissioned grade as being worthy of attainment. It is also desirable, but not essential, that he should be somewhat of an athlete, as it is of great advantage to a non-commissioned officer, and of benefit to the private, to act as instructor in athletics to the squad or larger unit; but the man should not be chosen solely for his expertness in athletic exercises.

It may often happen that the captain is unable to find a private embracing all these qualities, but the one who most closely approaches this description should be chosen to fill the vacant corporalship. When there are a number of men in the company who have served more than one enlistment it is generally the rule that they be given the first consideration, but when all the privates are in their first enlistment it is then that the captain's keen judgment and correct knowledge of his men come into play when selecting from among them the most suitable for the corporal's position.

3. FORCE.

Many of our non-commissioned officers lack the necessary force. Privates obey their orders with reluctance; it does not matter to the men how an order is executed, because they know if they go about a certain task carelessly and indifferently that the supervising corporal or sergeant will do the work himself while the privates look on.

A non-commissioned officer of this kind has not the grit to reprove a private for slovenliness. He seems afraid of his voice being heard; gives his orders, if they may be called such, in a tone that leaves their execution optional. He shows lack of force and energy in all his duties; at non-commissioned officers' school we see him inattentive and not prepared to answer questions properly inasmuch as he fails to apply a sufficient amount of his time to study in subjects with which he ought to be thoroughly familiar. While on guard we find him very much the same. As a corporal he is generally slow in getting his relief ready to be posted at the proper time, gives his commands in an indifferent manner and does not exhibit the required alertness and attention to duty at any time during his tour of guard, whether he be corporal or sergeant.

And what is the natural consequence when a soldier of this description holds the position of corporal or a higher grade? The men do not respect him, they do not execute his orders to the best of their ability and in a cheerful obedient way, they do not look upon him as one having authority, for that is rarely, if ever, asserted, and finally this non-commissioned officer—or if not he, then the captain—comes to the conclusion that he is unfit for the position, and resignation, or peremptory reduction, is the logical sequence of events.

Or again, we may find a non-commissioned officer who permits too great a degree of familiarity to exist between the privates and himself, such as playing games at cards, entering into useless discussions, drinking with privates or in making some of them his constant companions, which all tends to minimize his authority over the men in his charge, for they are inclined to look with contempt on orders from one whose conduct is evidently at variance with the dignity befitting his grade and yet endeavors to exercise authority over the men with whom he cultivates close personal association as if they were unknown to him. We can very appropriately apply the old time proverb in this instance that "Familiarity breeds contempt."

The two classes of non-commissioned officers above described constitute, and fortunately so, not the predominating ones, and in due time, they are replaced by men more worthy of the chevrons, and the higher standard of discipline, and consequently that of the efficiency, of a company, is restored by eliminating from the non-commissioned personnel such men

as have proven to be unfit for the grades given them in their warrants.

4. RAPID ADVANCEMENT.

Since the Spanish-American War men have frequently been appointed corporals who had seen but little service, sometimes only three months or even less, but the exigencies of the service at that time were such as left no alternative. The companies were being filled to the maximum, and later on when the number of regiments was increased we faced the same problem.

This demand for non-commissioned officers was partly supplied by the transfer of experienced men to the new organizations and partly by the appointment of the most promising recruits. But experience has shown that in but few cases appointments of the latter class have in the end been satisfactory. A man who has served only three or four months and is then selected to exercise authority is very apt to overestimate his own importance and is likely to assume a greater degree of dignity than that befitting his grade. In many cases he will make himself disliked by employing harsh and domineering manners, and, finally becomes wholly unbearable, inasmuch as he has not served sufficiently long as private to at all understand the treatment of the men under his charge.

In some instances a private is thus advanced within a very short time to the grade of sergeant owing to a large number of outgoing non-commissioned officers above him in rank. It so happened that one met with sergeants of probably from three to six months service, to all intents and purposes still recruits, but nevertheless holding positions of responsibility and charged with the enforcement of discipline. That in but few cases such non-commissioned officers turned out to be efficient is not surprising, for how can a man possess the requisite knowledge of the numerous details necessary to be familiar with in order to be a competent corporal or sergeant, not only if he himself has not lived in the squad room for some time and become acquainted with the duties of a soldier and his ways, but also has had no opportunity to make a study of the enlisted men in general and of those of his company in particular.

Discipline can be properly enforced only by those who themselves had their schooling in soldiering under strict discipline, and who have learned to appreciate the necessity of disciplinary measures in order to improve the standard of an organization.

A non-commissioned officer must fully understand that military authority is to be exercised with kindness and justice, yet with firmness; these qualifications must be blended in order that there be the means to an end.

The captain relies on his non-commissioned personnel for the enforcement of regulations, preservation of order, furtherance of discipline, instruction of privates in their duties, cleanliness of the squad room and that of the men, and above all, for exacting obedience from the men under their charge. For these reasons they must be competent and efficient in all their duties, understand army regulations, or at least so much thereof as relates to the company, and be familiar with all other orders and instructions as may be issued by the company or higher commander. They must themselves be an example of respectful behavior toward their superiors, may they be of the commissioned or non-commissioned grade, observe cleanliness and neatness of address, be punctual at roll calls and other formations, and with their well-timed advice assist new men in learning to be efficient and reliable soldiers.

5. PROMOTION.

It has been the custom in our service for years to promote the senior corporal to a vacancy among the sergeants. In many instances, however, the senior corporal has been passed over and someone junior selected in his stead, generally for the reason that in the opinion of the captain the senior corporal was not qualified for the duties of the next higher grade.

Some company commanders hold that when a soldier is not fit to be a sergeant he is equally unfit to be a corporal, implying that they would not have selected him if he had not been able, or at least considered so by the captain, from the very beginning to fill the position of sergeant, which contention seems open to some objections. In a company where the above rule prevails the senior corporal is the next sergeant by virtue of seniority and irrespective of his qualities for the position, or the corporal next in rank is promoted and the senior returned to the ranks as a private. It appears that this method would work hardship and injustice to an old and otherwise deserving soldier who may be able to satisfactorily assist a sergeant in carrying out the captain's orders when in or about the squad room, or do his duty as corporal of the guard, or act as leader of his squad when out at drill, but whose lack of educational

knowledge and other requisite qualifications prevent him from being an efficient chief of the squad room, or sergeant of the guard, or when at drill to act as chief of a section, or a platoon, as company and platoon guide, or to occasionally act as first sergeant or quartermaster-sergeant.

A man may also be a good and efficient corporal and yet not make a satisfactory sergeant, if he has not had sufficient service to warrant his promotion to sergeant. In that case it may be advisable to retain him until the next vacancy occurs, when in the meantime he may show ability and zeal to an extent that will justify his being recommended for the sergeantcy.

In a company where the seniority rule prevails we occasionally meet sergeants who are wholly incapable for the requirements of their grade. They are good soldiers and are evidently willing in all respects to do their duties, but whose willingness and good intentions do not counteract their obvious inefficiency, may it be caused by lack of mental capacity and executive ability, or whatever it may be, they constitute an impediment to retaining the standard of an organization, as no reliance can be placed in them, however worthy they otherwise may be, and it is in the interest of the service at large that they be returned to the grade of private so soon as there is a more competent man available.

The writer would suggest the following method of promoting corporals to be sergeants which may meet with the approval of the company commanders. Take the three senior corporals and have them undergo an examination, written and partly practical, in drill regulations, army regulations and the guard manual, due regard being given to penmanship, orthography and neatness displayed in the preparation of papers. The examining board to consist of the company officers, the board to be convened by a company order and the questions to be prepared by a member of the board and to be approved by the captain; the examination in drill to be both written and practical.

The examination need not be very extensive, say six, or any other number of questions in each subject; questions which involve long and tedious answers should be avoided. The practical test in drill to take place during the regular drill hours, the first sergeant to command the company and the respective corporals to act as guides, chiefs of sections and of platoons, etc., while the company officers observe the drill and mark

each corporal according to his proficiency. The papers in all subjects to be marked by each member of the board and a mean of these marks taken, in each subject, to be the percentage attained in that subject, and a mean of the marks in all the subjects to be the proficiency shown in the examination. In finally grading the papers of each corporal due weight should be given his record while having served in the company, and the one who stands highest should fill the vacant sergenty. This plan will foster among all the corporals the proper spirit for applying themselves to study, and it would not be simply a matter of selecting from among them the supposedly best man; seniority will come into play and mental qualifications as well and the most intelligent and capable of the three candidates will advance to the status of sergeant.

These examinations can be held in anticipation of a vacancy in order that the qualified corporal may be recommended immediately when the vacancy occurs and thus unnecessary delay be avoided. There may be some minor objections raised to a plan of this kind, but, no doubt, any apparent unfavorable features can be easily overcome, especially when it is considered that by carrying out this method no corporal wholly new in the service can be selected to assume the responsibilities of a sergeant's position, nor can one who is unfit for other causes though he be the senior.

6. DIGNITY AND EFFICIENCY.

In recent years it has become apparent that the privates of a company do not show the proper respect to a non-commissioned officer to which his position entitles him. This may be ascribed to several causes. In many cases the fault lies with the corporal or sergeant by cultivating an undue familiarity between the men under his charge and himself, which has been dwelt on at length, but as a more general rule it is brought about by the comparative ease with which the non-commissioned grade is attained and the still greater frequency of forfeiting the position.

The company commander naturally endeavors to overcome these defects, either by cautioning the men to observe at all times respect toward their non-commissioned superiors, by reprimanding them, and, if the case warrants it, to promptly punish the offenders, or they may be met with in any other manner as may best be suitable according to the circumstances

and which may be most likely to promote the efficiency of the company.

The separation of the non-commissioned personnel and the privates, so far as permissible, undoubtedly increases the regard for the dignity of the first named. In many companies the corporals and sergeants have their separate tables at the company mess, which appears to be a commendable step in the desired direction, and barracks to be erected in the future can be so planned as to provide special rooms for the non-commissioned officers. While it is not expected, nor at all advisable, that our sergeants and corporals hold such exalted positions as we find in most of the European armies, yet we should strive to imbue among the privates a higher regard for the non-commissioned grade and make the appointments only after a careful and minute investigation of the merits of select men and to cause promotion by examination as heretofore noted.

In order that our army maintain the high standard of discipline, and to insure the harmonious working of the minutest details in a company as a united whole, it is essential that our non-commissioned officers be highly competent in the discharge of their duties. The captain must be able to rely on them for building up the nucleus of his company. Inasmuch as they are in constant touch with the privates in the daily routine of duties, they know the character, more or less, of each man under their charge, and it is they who must instill in the recruit the military spirit and with it the soldierly bearing and a keen regard for obedience, respectful behavior and cheerful application to duty of whatever kind.



FIELD AND SIEGE OPERATIONS IN THE FAR EAST.

BY COLONEL WILLIAM R. LIVERMORE, U. S. ARMY.
CORPS OF ENGINEERS.

V.

DETAILS OF THE DEFENSES OF PORT ARTHUR.



HE original project for the defense of Port Arthur involved the occupation of a line more than forty-five miles in length embracing the circle of hills surrounding the harbor, requiring a garrison of 50,000 men and 528 guns, exclusive of seacoast guns, machine guns, etc.

For political and economic reasons, however, the garrison was fixed at 11,300 men and the armament at 200 to 250 guns. The German critics say that the Russians, in the hope of enjoying the fruits of their new acquisitions before their possession was secured, diverted the money that should have been spent on fortification to commercial uses and to the construction of the port of Dalny, which served as a base of operations for the Japanese.

It is interesting to consider whether we, in America, are guilty of diverting to commercial uses, in the hope of immediate gain, funds that should be appropriated to the defense of our property, our civilization and our national honor.

The final project of 1900 provided for the land front eight permanent forts, ten semi-permanent intermediate works, open at the gorge, nine temporary infantry redoubts, ten permanent batteries and a number of batteries whose position was located, but which were to be built during the period of mobilization and an armament of 541 guns and forty machine guns. Those for the land defense were to be distributed as follows: On the northeast, north and west fronts, on the advanced positions on the west, and in the immediate neighborhood of the city where an interior line of defense was projected.

GROUND SWEEP	KIND OF GUNS	FRONT				
		N. E.	N.	W.	W. ADV.	CITY
Distant	6" guns	18	6	30	8	
"	4.2" guns				10	4
Near	Field-guns	28	36	61	24	24
"	Machine guns	4			4	
Ditch	2.2" Rapid-fire guns	6	20	28	26	
"	Machine guns	8				24

The guns were to be mounted in the open, without protection either from casemates or armored cupolas.

Disappearing carriages were preferred, and were employed as far as the limited supply permitted. The ditches of the forts were to be defended by caponieres and counterscarp galleries, and shelter provided for men and ammunition by concrete bomb-proofs and magazines. The experience of the siege proved that the thickness of the concrete was insufficient. The old Chinese Wall and forts were transformed to some extent into defensive works of a very inferior character.

The total estimate for all the land and seacoast works was \$7,500,000, but of this amount only \$2,000,000 was appropriated and 1909 was fixed as the date of completion. Comparatively little had been accomplished when the war broke out. On the accompanying map* the position is indicated of those works that were completed before the war and some of those that were improvised during the war, but this map, which is compiled from various German publications, is not to be regarded as absolutely authentic either as regards fortifications or topography. By its aid, however, it is possible to follow the course of operations which would be impossible without a map.

Only three of the forts were armed.† The intermediate forts, open at the gorge, were even less advanced. The casemates, ditches and counterscarp galleries were for the greatest part unfinished.

The entrances to the forts were over drawbridges across the ditches. The casemates, scarps and counterscarps, as far as completed, were of cement concrete, not reinforced. The counterscarp galleries communicated with the interior of the fort, by posterns passing under the ditches.

The intermediate works were built like the forts, but of a weaker profile. They had ditches on three faces only.

The batteries were also provided with concrete casemates.

Everything was unfinished, and in most places the concrete had not been covered with earth. The ground in front of the defensive position was rough and intersected by deep ravines which were not swept by the fire of such works as could be improvised.

*See *Journal Military Service Institution* November and December.

†*Revue de Genie Militaire*, May, 1905.

The Russians worked day and night in strengthening the defenses with field-works of every description.

The trenches for infantry fire were made 5.1 feet in depth, so that the defenders were covered up to their chests by the natural soil. They were provided with a parapet on the side of the enemy, and the fire was delivered through loop holes. The trenches of communication were deep enough to cover a man standing up. There were numerous traverses, and bomb-proofs made of two layers of rails covered by about 6.5 feet of masonry made of large stones and cement.

In the month of June the land defense began to draw upon the navy for a supply of guns, and thirty Canet six-inch guns and fifty quick-firing guns of smaller caliber were mounted in open batteries without concrete bomb-proofs.

As accessory defenses the Russians planted in front of their works wire entanglements, mines, fougasses, trous de loup, abattis and wires charged electrically to 500 volts.

The wire entanglement extended in front of all the trenches, but was only six feet in width; the pickets were of wood, and the ground was hard and rocky. The Japanese removed them at night without much trouble.

For the mines and fougasses the Russians first employed electric fuses, but the Japanese six-inch shells, making craters six feet deep, destroyed the cables so that the Russians substituted a large number of automatic mines and fougasses that exploded as the enemy passed over the traps.

The trous de loup and abattis were of the ordinary form. They were easily destroyed by the Japanese artillery.

The Japanese cut the electrically charged wire with insulated shears.

The ground in front of the forts was lighted by search-lights and star-bombs. The search-lights and machinery were frequently destroyed by artillery fire. Experience pointed to the advisability of having a single central plant well protected from fire. The thirty-six-inch projectors were too weak. Forty-eight inch projectors are necessary for land defense.

A naval officer at Port Arthur improvised a balloon, but could not get material to make gas.

The kao-liang, which had been planted by the Chinese in front of Port Arthur, enabled the Japanese artillery to approach unseen to within 4500 yards of the Russian position.

Up to the first attack of the Japanese on 203 Meter Hill,

it was defended by two lines of trenches like those described above. On the summit there were two enclosed works of the same profile. As the result of experience, however, the masonry of the bomb-proofs was subsequently made 13.7 feet thick, so that the six-inch shells which exploded on striking the outer covering did not penetrate the concrete. The disposition of the trenches was gradually modified so as to cover the dead angles, and the means of access and sortie were increased. The parapets of the trenches were removed.

When the Japanese began to use their eleven-inch mortars, the Russians covered their bomb-proofs and magazines with ten feet of concrete and thirteen feet of masonry of large stones and cement, without any covering of earth. At Fort No. 5 a cover of thirteen feet of very large stones and cement, resting on two layers of iron I beams, about six inches in total height, resisted perfectly the eleven-inch shells which were seen to rebound before exploding.

Hand grenades were used with great effect on both sides.

At the beginning of the siege there was a very small supply of ammunition for pieces of large caliber. There were 300 rounds for each six-inch gun, but a few were afterwards improvised from old Chinese and other shells.

The Russians fired without reserve until the middle of August, in expectation of relief; then, more slowly, and in November only at the rate of five or six shots in twenty-four hours from each six-inch gun.

From the incessant demands upon their resources in the way of labor and material, or for some unknown reason, the Russians did not begin their work of countermining until the last days of the siege.

The strength of the garrison at the beginning of the siege has been estimated at 35,000 men, more or less, according to the number of volunteers and laborers, Europeans and Chinese, included in the estimate. After the fleet was disabled it is said that about 5000 men were taken from it for the land defense.

VI.

SUMMARY AND CONCLUSIONS.

The military student is chiefly interested in this campaign for the light that it may throw upon the science and art of war under present conditions.

It may be a long time before all the facts will be known with that degree of certainty which will satisfy the historian, but in the meantime it is practicable to learn enough to test, under the existing conditions, the application of the principles of military science which embody the thought and experience of ages.

The principles of military science remain unaltered, but the application is changed with new conditions. A hundred years ago this was supposed to be true for strategy, but not for grand or minor tactics. It is now recognized as a universal axiom.

In making the application, the general tendency of the military mind, especially with those high in authority, is in the direction of conservatism.

Officers who neglect the study of principles, and spend their lives in practicing the forms, may be willing to admit that conditions are changed, but not able to recognize, still less to realize, the extent of the change. If a new gun will fire twice as far, twice as straight and twice as quickly as an old one, the tendency is to assume that ten per cent. more will in the same time be hit by the new gun than by the old, and that this difference must be made up by better discipline and courage.

At the outbreak of war such men are often in command, and the useless butchery at San Privat, Plevna, South Africa, and Port Arthur was the fruit of conservatism.

Changes in tactics are usually the results of experience acquired during the early stages of war and they are developed in the following years of peace, and this is the time when military science is perfected. Now is the time of all others to work it up. The experience of the South African and Russo-Japanese Wars must be sifted and weighed. Now is the time for interchange of opinions among military men of all nations.

On general questions of strategy and grand and applied tactics secrecy is impossible and undesirable. It is better to inform your partner than to deceive your adversary, and those officers who are most active in developing the new science are, if otherwise equal, the most competent to apply it, and surely an army which is most active in such investigations will be better prepared for war than if it left them to a selected few, or accepted as second hand the conclusions of others.

It will be some time yet before all the information upon which to base the new science will be available, but meanwhile, pending the reports of the military attachés, a discussion of

the reports that have come in from military correspondents will be useful, not only for the inferences that may be derived from it, but by pointing out the subjects upon which more information is required.

These reports came in such fragmentary shape that the first requisite was to collect and arrange them, and the object of this series of articles has been to give an outline sketch of the field and siege operations to serve a nucleus around which to arrange the more elaborate and detailed reports as they become accessible.

A general description of the arms and methods of fighting has been given here and there in these articles and a few suggestions about the conduct of operations. The military student is more interested in considering what would be the proper course to pursue under conditions such as those reported than in establishing the personal responsibility for success or failure.

And it may be of interest to summarize these observations, and to compare them with a forecast of "The Modern Battle and the Effect of the New Weapons," in a paper by the writer of these articles, which was read before the Massachusetts Military Historical Society, in April, 1889, and published in the *Journal of the United States Artillery*, for September, 1901, p 172.

In this paper I said:

(a) The adoption of improved firearms by all European nations is the most obvious feature that distinguishes the new warfare from the old.

(b) Even now that magazine guns are recognized throughout Europe as the proper armament, the old tradition yet hangs on that the magazine is only to be used at close quarters, and this arises from the impression that after the magazine is discharged the piece cannot be fired more quickly than a single loader. This is no longer true with a good gun. The cartridges are kept in tin cases and inserted in the magazine with a single motion. The piece can be reloaded by the effect of the recoil or by a single direct movement of the hand.

(c) Other important factors in discriminating between battles of the past and present depend upon the employment of flatter trajectories and of smokeless powder.

(d) The field-artillery of the modern battle will consist of mitrailleurs firing 1000 rounds a minute of revolving cannon of one and one-half-inch caliber projecting a still greater number of fragments, rifles from three-inch to three and one-half inches caliber firing fixed ammunition at the rate of six and twelve rounds per minute, respectively, from carriages fixed to the ground and adapted to take up the recoil without destroying the aim. The arm of the cavalry will be similar to that of the infantry, but shorter in the barrel and in the stock. Infantry and cavalry will be supplied with light mitrailleuses

of the self-loading style. Many horses and pack mules will carry ammunition alone.

(e) The engineer troops will often be mounted and will be supplied with whatever their art requires.

(f) Troops of all arms carry intrenching tools, range finders, etc.

(g) The field-telegraph will be the main dependence of the commander-in-chief in arranging his dispositions for combat.

(h) The proportion of arms will not vary much from those of Napoleonic times. Four guns, 200 cavalry to 1000 infantry would be a good proportion for an open country.

(i) The general effect of the improvements of firearms is to reduce all deliberately planned battles to the attack and defense of fortified positions. Night attacks, however, will be more frequent than heretofore. The defenders will use smokeless powder, but under favorable circumstances the attack will cover its advance by smoke balls thrown out in front of the defenders.

(k) The principles of grand tactics are not affected by new conditions, excepting that the same number of men are capable of occupying and defending a much longer line. But all tactics in Europe still provide for a strength of six or seven men per meter of front on the side of the attack. A much weaker line is sufficient to hold a position against an assault; but it will be a long time before armies will be deployed over as wide a front, and the prevailing type of battle now consists of an attack along the whole line, combined with an enveloping movement on one flank. * * * If the defensive forces are inferior in number and efficiency and remain concentrated on a narrow front, no other mode of attack is required; but after many such experiences the defenders will spread out to avoid such dangers, and then, with the evenly balanced advantages of center and flank attack, the genius of a Napoleon will again make itself felt on a battle-field. Grand tactics is not a dead science, and battles of the Austerlitz type are not merely affairs of the past.

(l) *The principle that a firing line must be at first very open and gradually reinforced and made denser is by no means of universal application.

(m) The principle that a tactical body once thrown into a firing line on the offensive can never be relieved * * * is, in its broad sense, directly at variance with the fundamental principles of military science. The stereotyped form of assault adopted by the French, and until recently by the Germans, is only possible when the enemy is either surprised on the march or unable to take advantage of natural or artificial shelter, or when his position can be subjected to a long bombardment of artillery-fire or enveloped by a long line of infantry that can concentrate its fire on a narrow front.

Occasions sometimes arise where it becomes necessary to carry a strong position by a direct frontal attack. One small fraction of the enemy's line may hold the key to the position. If this position cannot be surrounded it may be worth while to sacrifice more men to carry it than all the hostile force that holds it.

With magazine guns a position of this character, if not regularly fortified, may be carried by bringing up successive lines, each gaining more or less ground to the front, and after firing several hundred rounds per man retiring to a place of shelter in the rear.

(m) The formation of groups on the firing line at first sight ap-

pears to be a step in the wrong direction, but a little calculation will show that skirmishers will suffer but little more at long range in groups of four men at distances of ten yards apart than if the men were deployed over the intervening space.

(n) *There is now more scope than ever before for grand tactical maneuvers of cavalry in connection with mitrailleuses and guns of all calibers. * * * The first to organize an efficient force of cavalry and horse-artillery adapted to modern conditions will acquire an immense advantage. This force can suddenly be directed upon the decisive point and take up a position to bring a concentrated fire upon the enemy's line. * * *† The heavy guns take up positions on commanding heights; the mitrailleuses are distributed along the line wherever a moderate field of fire can be formed, and thus the dismounted cavalry are only required to fill up the chinks in woods, villages and rocks, and then with their magazine guns and an unlimited supply of ammunition carried on pack animals they can perform the function of infantry to advantage. * * * The Germans made excellent use of their cavalry in 1870 by covering their entire front with an impenetrable screen hundreds of miles in length and far ahead of their main body. * * * The work, however, would have been accomplished better if they had been taught to fight dismounted and reinforced their fire with that of mitrailleuses on the battle-field.

A force like this could move with confidence and celerity; if they should encounter cavalry of the old type their skirmish lines could fall back and the support could so maneuver as to draw the enemy into the fire of the mitrailleuses, or if a small group attempted to capture these guns they could be met by the fire or sabers of the reserve.

(o) The leading features of artillery tactics are as follows: It is brought into action as early as possible in the fight and maintained until the last. During the action it is pushed well to the front if possible. If, however, the ground permits, it fires over the heads of the infantry. Whenever commanding positions and long ranges are available the artillery is massed as much as possible.

(p) We must organize a large reserve and practice it long in maneuvers that will offer at least a fair picture of the positions of opposing armies under the conditions of modern warfare before we can hope to avoid the dangers of the most stupendous butchery.

(q) We must organize an efficient general staff composed of officers who devote their lives to the building up of military science before we can hope to accomplish anything with our armies.

(r) We must learn all we can from European nations about their methods and their state of preparation; and we must afford the needful facilities to all our soldiers, and allow our citizens who are so disposed to learn the principles of the new science."

Information as to the truth or error of such predictions would be valuable to the military student and they are quoted here with a view to eliciting such information from those who have seen and studied the field and siege operations in the Far East. I know of no better way to recapitulate the views which I have expressed in these articles in connection

**Journal U. S. Artillery* September, 1901 p. 174-5.

†*Journal U. S. Artillery*, November, 1901, p. 277-1

with the narrative of events than to compare them to those expressed sixteen years ago.

(a) The wars in South Africa and in Manchuria were the first to give a test to the new weapons on a large scale although the experience in Cuba, the Philippines and China shows that their effect had not been overestimated. In the earlier battles and in the first operations against Port Arthur, the Japanese tried to make up for their losses by repeated assaults, but accomplished nothing that could not have been accomplished better by more skilful dispositions. Up to the last both the Russians and the Japanese were occasionally caught in dense formations at close range with fearful consequences.

(b) The magazines of the rifles were reloaded with clips and the old idea of reserve magazines has been definitely abandoned. Vast quantities of ammunition were expended, and the average effect per cartridge was perhaps as great as if the same men had been armed with single loaders.

More definite information on this point is desirable, but the war has clearly demonstrated the advantages of the clip system.

(d) The advantages of mitrailleuses of the self-loading type have been clearly demonstrated. Revolving cannon have been replaced by automatic pompoms, but their use against troops is limited. Neither of the combatants was equipped with field-artillery with long recoil carriages. The rate of fire was from four to eight rounds in a minute and the effect was such as to show what should be expected of the guns with long recoil carriages, now universally adopted, which fire twice as fast. Guns of heavy caliber were used in the field to good advantage, although the field of fire was more limited than in South Africa.

(e) The engineers appear to have played a very prominent part in field operations both as technical troops and as infantry.

(f) The necessity of intrenchments, both for attack and defense, was clearly demonstrated and all Manchuria was intersected with them.

(g) The operations were all conducted by telegraph and telephone.

(h) The proportion of guns was between three and four to 1000 infantry, but that of cavalry was very small for the reason that the Japanese made little use of horses and the Russians had a long distance to transport them.

(i) All the battles consisted mainly in the attack and defense of fortified positions excepting that of Mukden after the Russian position was turned. The ground there was frozen too hard for hasty entrenchments and the attack and defense fought on equal ground.

Night attacks were more frequent than ever before and the Japanese showed especial skill in conducting them.

The effect of smokeless powder had already been demonstrated, but this war showed the advantages to be derived from the use of shells with opaque powder to conceal the movement of troops.

(k) At the Yalu, the Russians with perhaps 15,000 men attempted to defend a line twelve miles in length with a wide river in front, but the battle was fought along a line of six miles where the Russians numbered perhaps 12,000, or 2000 to a mile and the Japanese 7000 to a mile. Even this thin line could not be approached in front after a heavy front and flank fire of artillery until it was turned on one or both of its flanks.

At Ta-shih-chiao the Russians with 30,000 men had a line of about seven miles in length, making about 4300 men to a mile. The Japanese, with 50,000 men, carried it by a night attack for which the Russians were unprepared. At Liao Yang the Russians with 200,000 men defended a line thirty-two miles long, making 6200 men to a mile. The Japanese attacked with 220,000, and leaving a gap of six miles on the right of their center turned the Russian position. The Russians' right could have been held indefinitely by a much smaller number and men enough could have been spared to hold the center and overwhelm the Japanese right. The Japanese instead of hammering away at the whole line in the German fashion would have done better if they had made their turning columns still stronger or turned both flanks. At the Shaho 270,000 men on each side occupied a line of fifty miles, making 5400 men to a mile. The Russians would have done better if they had made their turning columns stronger and not hammered so hard all along the line. At Hei-kov-tai about 85,000 men attacked a front of twenty miles making 4250 men to a mile. The conditions were abnormal and the relative strength of the combatants reversed. If the weather had been favorable for such operations the Russians could have defended the Shaho with a much thinner line and made the turning movement in greater force. At Mukden 360,000 Russians

defended a line eighty miles long which was outflanked by 430,000 Japanese with a front of 100 miles, making 4500 and 4300 men to a mile. The Russian left and center could have held its position indefinitely and force enough could have been withdrawn from the center to overwhelm the Japanese turning columns on the Russian right. Although the final collapse of the Russians was caused by the lack of co-ordination of the units which enabled the Japanese to pierce the center, it was not the piercing that caused the Russian defeat. This battle was not of the Austerlitz type, where one army is cut in two by the other. The Japanese who penetrated the gap would have been surrounded and annihilated if the Russian armies had been kept in hand. All these suggestions refer only to the question of the density of the line of battle with modern firearms and are not intended as criticisms of the conduct of the commanders, on either side, who were perhaps influenced by other considerations.

(l) (m) The Japanese infantry attack on the Russian right at Liao Yang, August 30th, is thus described by the correspondent of the *London Times*.

Early in the afternoon most of the leading infantry battalions had worked down to the fringe of the uncut millet. Here the 1200 yards of open ground stayed them. But they were turning to advance against the trenches, and the supports had already brought up their batteries of little hand howitzers (about 1½ in. howitzers taken into the firing line by hand, on miniature trucks) and had opened against the works on their immediate fronts. Advancing parallel with the railway and long before the artillery preparation warranted it, the leading brigade of the Sixth Division attempted an infantry assault on the village at the foot of Gibraltar*. It was a foolhardy attempt. The little groups of twelve men dashed out into the open. A rush of twenty yards and then a wait, lying down until a supporting group passed through you. The crash of infantry and machine gunfire rolled out from the loopholed walls, and in fifteen minutes the attack had been swept away and the brigade had lost a thousand men.

The second assault failed miserably all along the entire Russian front, with the exception of the most easterly point of Brush Hill. The Japanese Twenty-first Infantry made an impression here. But for the rest, the Japanese were swept from the glacis of Green and Grassy Hill as ripe corn before the sickle of the reaper, and as day broke the three divisions concerned in the assault had to use the spade for dear life in order to be able to face the ordeal of the coming day. * * * Many of the more adventurous groups had formed patches of dead ground in the intervening space between the milled and the Russian works. Some even had temporary security within twenty yards of the lower trenches. Theirs was to be a terrible lot through-

*See sketch, Battle of Liao Yang, *Journal M. S. I.*, Vol. 37, p. 125.

out the day, and for the majority the temporary salvation afforded by the Chinese tomb and casual mound only meant short respite from the fate of their comrades, whom daylight disclosed impaled upon the barbed entanglements. But the fortunes of the Twenty-first Regiment had been different. At nightfall the four battalions of this unit had been massed upon the dead ground found on the eastern slope of Bare Hill. With the orders for the first assault the leading companies had made good the inner crest of Bare Hill, and, working like Trojans, had cut a shallow trench across the western shoulder of the hill. * * * When the time arrived for the early morning assault the bulk of the assaulting companies were defeated by the *chevaux de frise*, but for some reason, known only to themselves, the Russians had failed to close the entanglements just where the road over the saddle passed over them. In the darkness half a company of Japanese infantry found their way through the opening, and, scaling the bowldered bed of a dry mullah, took the nearest Russian trench in flank and after five minutes of desperate *melée* possessed themselves of it.

During the night August 30th-31st, three battalions were massed in the dead ground in a slight re-entrant on the south face of Bare Hill. * * * The artillery was concentrated upon the Brush Hill defenses, the lower trenches of which the Russians had reoccupied while the fire of the Third Division's guns swept Bastion Hill from its conical apex to scrub-grown base. * * * At 11 A. M., the battalions under cover on Bare Hill began to move. The men were taking off their knapsacks and packing them. * * * At 11.30 A. M. all bayonets were fixed. * * * Up jumped two sections of twelve men and they doubled forward to perhaps twenty-five yards, and then lay down; up jumped another two similar sections and passed through them. * * * Soon the whole hillside was checked with little groups doubling their twenty-five yards and then lying prone. * * * The whole plain was moving with them. * * * On they struggled, withering under fire as they sped, till a few reached the entanglements. * * * The last devoted few, in spite of point-blank fire, in spite of contact mines, and in spite of pits, had made an opening. *

In open ground the troops would naturally deploy and perhaps the ordinary formation of the group would be in single rank at intervals of about two paces, but in many situations and especially where two armies encountered each other on the march as they did during the last days of the battle of Mukden, the formation would be as dense as in former wars.

(n) The Japanese cavalry was weak in numbers and in the quality of its horses, and the Russian Cossacks were generally inefficient, and many hasty conclusions have been drawn from these facts about the use or the uselessness of the arm.

The most interesting perhaps are those of the correspondent of the *London Times*, August 23, 1905, which I think are clearly answered in the article on the "Modern Battle" quoted above. The correspondent laments that the British govern-

*See sketch, *Journal M. S. I.*, Vol. 37, p. 135.

ment, as the result of its experience in South Africa, made elaborate arrangements for the provision and training of what is known as mounted infantry. He asks whether mounted men are wanted for their riding or their shooting; and says in substance, as follows: "The arming of the British cavalry with rifles and certain modifications in its training show that mobility is regarded only as a means to an end."

In Manchuria cavalry has been conspicuous, not by its absence, but by its utter and astonishing inefficiency. From Liao Yang northward the conditions have been ideal for the employment of shock tactics. Yet no single instance has been recorded of a combat between mounted men. The cause of the ineffectiveness of Japanese cavalry is in the poor quality of the horses and the fact that the Russian cavalry outnumbered them six to one. The Russian cavalry is estimated to number 30,000. It is, he says, because the Russian cavalry, armed as it is with the rifle and bayonet, is trained to fight only on foot, thereby throwing away its most valuable weapon, mobility; that it has proved no more effective in the field than a flock of sheep. "In peace they are armed with lance and sword and in war they are asked to fight with rifle and bayonet." This may help to solve the problem. If they were employed in this way on police duty, it is not fair to expect as much of them as if they had been trained in the use of their rifles in applied tactics and in grand maneuvers. The correspondent's arguments are interesting because he voices the opinions, or rather the sentiments, of so many European officers. It seems incredible that these officers should take as a fundamental principle that shock tactics in these days refer to the shock of cavalry against cavalry, and that the magazine rifle, which permits the firing of many shots a minute, has rendered the chances of success of a charge against infantry exceedingly remote. "But" he says, "when a mounted man dismounts he sacrifices his mobility to become a weak infantry man." This is not true of well-trained cavalry. This report is very interesting in giving a history of the operations of the Russian and Japanese cavalry, but he does not mention that when the Japanese cavalry screened the advance of Nogi's army at the battle of Mukden it was not their sabers upon which they depended as much as upon the muskets of infantry mounted in wagons.

(o) The Russian artillery appears to have depended upon

the fire of shrapnel, but the Japanese were provided with both shrapnel and high explosive shells. On both sides indirect fire was most extensively employed. Commanding heights were occupied by the observers, but the pieces were placed behind the crest and the fire of many batteries directed upon a common point by telephonic or other signals. At Liao Yang the fire of 200 pieces upon a line of about 1000 yards in length would have annihilated troops in ordinary trenches. At Mukden the Japanese are said to have had 1600 pieces, some of six and even eleven-inch caliber. The high explosive shells of these pieces were useful in destroying obstacles, but it would have been hard to transport them in a hasty retreat. Recent wars have demonstrated that a well-fortified position can only be taken by siege operations, but trenches of light profile can be destroyed by high explosive shells plowing up all the ground upon which they are built. These wars have also demonstrated the value of high-angle fire for field and siege operations.

A vast amount of ammunition was fired into space and the responsibility for the important work that will be required of field-artillery in future points to the necessity for the highest training for its officers in war and in peace upon the field, upon the target ground and upon the map.

(p) The Japanese reserves were well trained. The Russians brought men into the field who "were taken straight from the plow, uniformed and sent off under command of reserve officers, often second lieutenants, who lost their heads at the first complication."* The Japanese had been drilled in the German art of war under the leadership of General Meckel, whose name has long been known as an exponent of kriegsspiel, and they had carried their practice maneuvers into the minutest details.

(q) The Japanese general staff appears to be an exact copy of the German, which is an excellent organization for administration and command. Whether it is the best possible for preparation is another question.

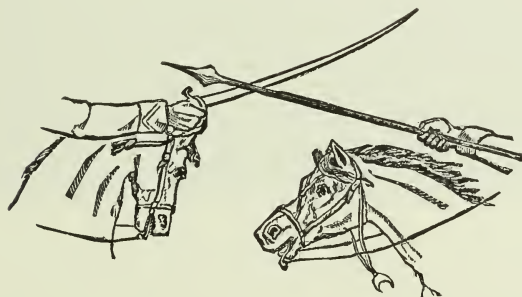
To organize, equip, supply, drill, instruct and administer to an army are some of the functions of the officers of the line, the Staff Corps and the Special Staff. To make use of the great machine is a function of the commanding officers and the General Staff. To suggest the means for co-ordinating, with-

*Taburno, "The Truth about the War."

out obstructing, the work of the several branches of the line and staff is an important function of the General Staff, and the Japanese, following the Germans, have in some respects performed this work with great success. But it is not enough to connect the parts and lubricate the joints; the machine must be adapted to new conditions. The experience of the last war must be applied to the conduct of the next. The art of war is always changing, and one important function of a general staff, which is truly the brain of an army, is to suggest such changes as are demanded by new weapons and new fields of operations. All parts of the machine should be adapted to the new conditions, and this requires originality and hard mental work of the highest order, untrammelled by excessive conservatism.

The usual practice is to use the old machine until it is knocked to pieces, before making a new one and this appears to have been the policy of the Japanese in the early operations of the war.

The Russian general staff is of a composite nature.



TYPES AND TRADITIONS OF THE OLD ARMY.

EXTRACTS FROM THE UNPUBLISHED MEMOIRS OF MAJOR-GENERAL ZENAS R. BLISS, U. S. A.

I. SOLDIERING IN TEXAS, 1854-55.

I RETURNED to Fort Duncan and had a wall tent assigned to me as quarters, as there were no houses or rooms vacant. My tent was pitched on the parade ground, and the quartermaster gave me some grain sacks for a carpet. I pegged them down on the ground, moved in my trunk, and without chair, table or bedstead commenced life at a frontier post. I lived in the tent some time, when Sheridan, then a brevet second lieutenant, who, by some good fortune had a house, asked me to share it with him, and I lived with him till he left the post in the following spring. Life in that tent was anything but pleasant; every few days in winter a norther would spring up and the dust would fly in such clouds that one could not see, and my tent, bed and clothing would be covered with it. It would even sift into my trunk, and frequently when I would get up in the morning one side of my face would be as black as the ground, while the other was comparatively white. Besides the elements I had other things to submit to that were almost as bad. It was a splendid joke for the young officers on their way home from the sutler's store or town to loosen my tent cords, so that if the wind came up during the night my tent would cave in; but I soon found a way of avoiding that annoyance, by staying with them till they went to bed themselves. I think that Fort Duncan was the wildest post I have ever served at. Duncan was a large post of ten companies, one of Artillery, one of Rifles, and eight of the First Infantry. Colonel Plimpton was in command. He was a very old officer, and in a few months after I joined he went home to the States, and did no more duty with the regiment. Colonel Bainbridge, lieutenant-colonel of the First, then took command, and was on duty till a year or two after, when he was drowned from a steamer in the Gulf of Mexico. He was a short, fat man, and troubled with the gout, but he was an excellent officer, and everyone respected him and liked him socially. On muster days everyone was invited to his quarters, where an ample lunch was provided, and old and young, high and low in rank had a pleasant social time together. Such entertainments were expensive, and only those high in rank could afford to give them. He was very particular in regard to military and social etiquette, and made his calls on all officers with the utmost care and punctuality. His day for calling on the lieutenants was Wednesday, and we were all careful



ZENAS R. BLISS,
MAJOR-GENERAL, U. S. ARMY.

Born in Rhode Island, April 17, 1835. Appointed from Rhode Island.

Bvt. 2nd Lieut. 1st Inf., July 1, 1854. 2d. Lieut. 8th Inf., March 3, 1855. 1st Lieut., Oct. 17, 1860. Capt., May 14, 1861. Col. 10th R. I. Vols., May 26, 1862. Col. 7th R. I. Vols. Aug. 21, 1862. Bvt. Maj. Dec. 13, 1862, for gallant and meritorious service in the Battle of Fredericksburg, Va. Bvt. Lieut.-Col. May 7, 1864, for gallant and meritorious service in the Battle of the Wilderness, Va. Mustered out of Vol. Service June 9, 1865. Maj. 39th Inf., Aug. 6, 1867. Trans. to 25th Inf. March 15, 1869. Lieut.-Col. 19th Inf., March 4, 1879. Col. 24th Inf., April 20, 1886. Brig.-Gen., April 25, 1895. Major-Gen., May 14, 1897. Retired on his own request after forty years' service, May 22, 1897. Medal of Honor for most distinguished gallantry in action at the Battle of Fredericksburg, Va., Dec. 13, 1862. Died January 2, 1900, at Washington, D. C.

to be ready to entertain him in our limited way. On New Year's eve of 1854, the officers got permission to fire a salute with the heavy guns at midnight. There was a great deal of anxiety on the part of the Mexicans at that time on account of filibusters, and when the first gun was fired they rushed from their houses on the opposite side of the river, and could be seen darting from house to house with candles and lanterns, thinking, I suppose, that the filibusters were after them. After the salute the officers took the band and serenaded the ladies of the garrison. We were always invited in, and repaid the kindness by taking the glasses and chairs from one house and leaving them at the next, causing a mixture of furniture that must have been fully appreciated by the ladies the next morning. The head man that night in all the deviltry was, during the war, a major-general and division commander, and has, since his retirement for wounds, published several books on the war.

FORT DUNCAN.

Fort Duncan was established soon after the Mexican War, in 1850, I believe, and the site was selected by Robert E. Lee, then a captain of engineers. It is situated on a bluff of the Rio Grande, opposite the Mexican town of Piedras Negras, and near the principal ford of the river in that vicinity. The town on the Mexican side, I think, was settled before the post was established, and at that time (1854) had nearly 1000 inhabitants. No Americans lived on that side, but there were several quite nice Mexican families there who sometimes attended parties given in the garrison. * * *

There were at Fort Duncan at that time three stone dwelling houses; a hospital, magazine and quartermaster storehouse, all of stone. The Rifle company* was in tents, but all the others were in picket houses, called jacals. All the buildings at the post were erected by the labor of the soldiers, and did not cost \$500 beyond the current pay of the men. Many of the officers lived in these jacals, and some hired Mexicans to build, and owned the houses in which they lived. This, of course, was quite a tax on their small salary, and they got no return from it. The picket houses were of very simple construction; sticks about five or six inches in diameter and of proper length were cut, a trench about eighteen inches was dug, which outlined the ground plan of the house, and in this trench the poles were placed in an upright position, the earth pounded around them, and a space left for a door or two, a thatched roof placed over it, holes cut for windows, the spaces or chinks in the walls filled with small pieces of sticks and mud, and the house was complete, and quite comfortable, both in summer and winter. Some of the houses built by the officers were entirely of thatch, the sides as well as roof, quite as comfortable as the others, but a little

*Regiment of Mounted Rifles.

more liable to take fire, as Lieutenant (now General) Doubleday found to his cost. He had a house of this kind, and it took fire near the ground, and in a very few minutes had entirely disappeared, barring the ashes. All of these houses were necessarily temporary affairs, and when I was at the post, sixteen years after, there was not a trace of one of them to be found, not even the fireplaces or chimneys, which were of stone, or adobe. The house to which Sheridan invited me was one of this kind, but was in bad repair and leaked like a sieve when it rained, which, fortunately for us, was very seldom. One night it rained very hard and the water came down on me in my bed. Sheridan's bed occupied the only place in the house where the water was not dropping, and he asked me to share it with him, which I gladly did, first putting two deer skins on the mosquito bar over the bed. We were soon asleep, but were very suddenly awakened by the bar giving way and pouring about a bucket of water on us in bed. It had commenced to leak on that side and the deer skins protected us very well till the bar gave way from the weight of the water and drowned us out. We got up and sat by the fire, wet and shivering, bemoaning our lot till daylight.

Soon after my return to Duncan, Sheridan was promoted to a second lieutenancy in the Fourth Infantry, and started for Oregon, and I did not see him again till he was a major-general, in 1864, I believe. * * *

A HORSE INVESTMENT.

Nearly everyone had a horse, and I was anxious to buy one. A sergeant told me he had one for sale at twenty dollars, and I told him to bring him up and I would try him. He did so, and I started out; in going down a little hill at a gallop he fell, and turned a complete somersault, and pitched me about twenty feet. I was not at all hurt, rode back to camp, but did not buy the horse. A short time after a Mexican brought a horse to me to sell. He was a good one, and I bought him for twenty-eight dollars. The man said if I could get a race on the horse for a short distance he would go halves with me, as the horse could beat any horse in camp a quarter. I made a race with Lieutenant Swain for fifteen dollars, and Lieutenant Jenkins of the artillery rode my horse. He was the lightest officer at the post, and I chose him for that reason. I would have won, but Jenkins could not hold my horse, and he ran away and did not cross the line at the appointed place, and I lost. I was so positive that I could beat him that I made another race, and got Lieutenant Davant, one of the largest men in the post, to ride for me. He kept my horse on the track, but he carried too much weight, and I was beaten again. I had the horse tied out back of my house to graze, and in the afternoon told my striker to saddle him, and I would take a ride. He soon came to me and said he could not find the horse.

I went with the man then and found that his rope had been cut and the horse stolen, and I never looked upon him again. I owned him but six or eight hours, was never on his back, and had lost two races with him, and concluded that as a speculation, the transaction was not a success. I learned afterward that the man who sold the horse to me also stole him back, which ought to be proof that he was a good horse, and that my judgment of horses was good.

INDIAN RAIDS.

One morning as I came out of my room I saw several officers hurrying about with pistols on, or in their hands, and I went to them to see what was the matter, and learned that the Indians had killed a man near the post, and the cavalry were going out after them. The man killed was a discharged soldier and had been a musician in one of the companies at the post. He was out riding about a mile and a half from the post with a Mexican, when they saw Indians approaching. The Mexican wanted to run, but the other said no, they would go in the chaparal, and the Indians could not, or would not, bother them. He gave the Mexican, who was unarmed, his rifle, and they went into a thicket. It was supposed the Mexican ran and left him with nothing but his six shooter, but he made good use of that; he killed one Indian who was left dead on the field, another died from wounds after crossing the river, and a third was disabled from a ball which lodged in or near his spine, and he was never able to get about after he received the wound. The soldier was killed, and when the company, which started out as soon as possible, found him he had eleven arrows sticking in his body and five in his head. The Mexican went back to the place where they were attacked, as soon as he had reported to the commanding officer, and found the man lying there dead, but not scalped. He put the dead man in front of him on his horse and brought him into the post. As the troops were going out they met him, and a citizen who accompanied the troops rode forward to speak to him. He did not know there was more than one man on the horse, and when he saw the dead man with the arrows sticking in his head and body, he fainted, and did not go any farther on the scout. The troops followed the Indians to where they crossed the river, and were then obliged to abandon the trail, as they were not permitted to cross the boundary between the two countries. * * *

Some time before I joined at Duncan there were a great many Indians at Clark. They were at peace, and were encamped near Las Moras spring, and on Piedra Pinta creek, seven miles west of Clark. The Lipans and Tonchahuas were there and perhaps some other tribes. There were some negotiations, and the result was, as I remember, that the Tonchahuas went on a reservation, and the Lipans would not, but left and went across the river into Mexico, and have remained there, and been at war with us ever since. They were at that time a

quite powerful tribe. Little Davy took the Toncahuas to their reservation, and on the way was met by a scout of Texas rangers, and they were very anxious to pitch into the Indians, but Davy would not permit it. An old chief heard the talk, and finally told the captain of the rangers that if he wanted to fight very badly that he would fight him single handed, that the captain should take his pistol, and he would take his bow and six arrows, and they would mount their horses and fight it out, but this the captain did not care to do, and the Indians went on their way; they have been at peace with us ever since, and some twenty or thirty have been for many years employed as scouts. While these Indians, or a part of them, were at Clark, some Comanches came in and committed some depredations, and a scout, consisting of two officers and about a dozen men and three Indians went out after them; the soldiers were infantry mounted on mules. They went east from the post and struck the trail, but it soon commenced to rain very hard, and they had but little hope of catching them.

They were riding along in single file, the Indians in front and the officers and men following, when they suddenly came upon three Indians. The Indians with the troops threw off their blankets, and with a yell dashed after the Comanches who had also discovered the soldiers. The yelling and throwing of blankets, etc., by the Indians stampeded the mules ridden by the men, and they started off on their own hook across the prairie, jumping the cactus and bushes, and in a very short time after the Indians were discovered every man was thrown, and his mule running across the prairie. The two officers remained mounted, and also a drummer boy, and they kept in sight, at least, of their allies. One of the officers told me of the affair, and it would have been very ludicrous if there had not been a little too much danger mixed in with the absurd. Two of the Comanches were mounted on horses and got away; the other was mounted on a mule and was overtaken by an Indian and killed. The officer said that the skill with which the Indian handled the lance with which he was armed was marvelous. He ran up to the Comanche and ran his lance through his back, he fell forward on his mule's neck and hung on to the mane, the Lipan then ran past him and as he went by threw the butt of his lance to the left, and made a "right point", cutting the Indian's throat as cleanly as if he had been standing beside him on the ground. That night the Lipans had a big scalp dance, and the Comanche's scalp was the center of attraction. After the Comanche was killed and scalped they went back and got the men together, I suppose. If there had been a large party and the men had been thrown as they were, they would have been cleaned out without being able to make any effective resistance. Captain King of the First Infantry was in command of the party and B. F. Smith, a brevet, I believe, in the First, was with him. King was retired as senior

colonel of the infantry after forty years' service, and now resides in St. Paul, I believe. B. F. Smith, "Beef", as he was called from his initials, died soon after the war, and had at the time of his death the rank of major. * * *

DESERTION AND ITS PENALTY.

When I entered the service, and for some years after, whipping was the usual punishment for desertion. The man to be whipped was brought out in front of the battalion, which was paraded under arms for that purpose, the guard formed a short distance in front, and a stack of muskets was formed; all the man's clothing was taken off to his waist, his hands tied together and fastened to the bayonets of the stack. The drummer-boys were generally detailed to do the whipping and the drum-major superintended it, and counted the lashes, which usually numbered fifty, and were "well laid on with a raw-hide," as the sentence demanded. After the lashes had been administered the prisoner was taken to the guard-house, and his back washed with brine, his head was shaved as closely as possible, and he was placed in front of a few members of the guard, who came to a charge bayonet, and marched him completely around the post, the drums and fifes playing the Rogues' March, the words of which were "Poor old soldier, poor old soldier, tarred and feathered, and sent to h— because he was a deserter," he was then turned loose and was not allowed to enter camp again. In addition to the whipping they were almost always marked on the hip with the letter "D" in India ink, to prevent their ever re-enlisting. There was a man of my company named Donovan who had deserted several times, but had in some way escaped punishment. He was absent when I joined, and had two charges of desertion against him. Finally he gave himself up, much to the disgust of the captain, who never wanted to see him again. He was tried, and sentenced to receive fifty lashes well laid on, was published on parade, whipped and put back in the guard-house. A few days after, when I was officer of the guard, the sergeant of the guard told me that Donovan wanted to see me, and I told him to bring him in. He came in dressed in a nice suit of citizen's clothes, and told me that he wanted to thank me for my kindness, that his back was well, and he was ready to go, and had come to bid me good-by. I thought it was all right, but my good genius was at hand, and I told him he could go, but to wait till I could send up to the office. He went back into the prison room, and I sent a man to tell the adjutant that Donovan was ready to go, and if he wanted nothing more of him I would turn him loose. The man came back on the run, and said the adjutant said not to release him, and immediately the adjutant himself came, and said on no conditions to let Donovan go, as had to receive fifty more lashes as soon as he was able to stand it, and the next Saturday he received them and was drummed out. He knew

very well that he had to be whipped again, but tried to take advantage of my inexperience and get away. He settled near the post, and behaved himself very well, got together quite a valuable lot of cattle, and sold milk to me nearly twenty years after the time he tried to get away.

ARMY PAY IN THE FIFTIES.

All things have an end, and in the army they generally end very abruptly, and unexpectedly, and the order to distribute the infantry companies garrisoning Duncan, to four posts, caught everybody unprepared, and very few had proper conveyances for their families. The pay proper of a second lieutenant was at that time \$25 a month, with \$5 added for a first lieutenant and \$10 for a captain, but there was added to this \$9 for the pay of a servant, not a soldier, \$3 for clothing for servant, four rations a day and an additional ration for the servant. The price of a ration was twenty cents, and all added together made the handsome sum of \$64.50 for a short month. A first lieutenant got \$69.50, and a captain \$74.50 and \$10 extra when commanding a company. Thirty days' pay was \$66.50. The expenses of living were fully as high as they have been since, and an officer with a family had to practice the most rigid economy to live at all and appear respectable. Very few had carriages, and government wagons had to be fixed up with seats to accommodate ladies and children. The bachelors fared better, of course, as they had nothing to carry and no one to look out for but themselves. In order to live comfortably we used to mess together generally, and I belonged to the bachelor mess at Duncan, and have never joined one since. It was necessary that everything should be as simple and as plain as possible in order that the mess-bill might be kept as low as possible, and still have enough to eat, and if it got above \$17 a month there was no end to the grumbling. We had scarcely anything in the commissary outside the soldiers' rations, and it was almost impossible to buy anything outside. I remember the last meal that we all ate together in our mess; there were five in the mess, and as we walked into breakfast there was set before us a loaf of soldiers' bread, as heavy as a piece of india-rubber, and four boiled eggs. Dr. Wood, who was considered rather fastidious, rebelled and said he would not sit at such a table, it was disgraceful, and took his hat and walked out, on which Josh Reynolds, the caterer, said he was very glad of it, for if he had not left the mess he did not know how he should have managed to divide the four eggs between five of us, but now it was all right and invited us to help ourselves. We had a good laugh over it, but all were tired of that kind of living, and the mess was broken up, and we managed in some way, but I do not remember exactly what I did do. However, the change of station came soon and we were then all right. The breaking up of the post was a much more serious and solemn affair than I had

anticipated, everybody seemed sad, the fact that we were to separate at all was sufficient to make all the young people and their sweet-hearts sad, and the older officers and ladies knew from previous experiences of the same kind that many of them would never meet again. So far as my experience has gone I do not think that I have ever met one-half of the officers since, and not one lady in ten of those with whom I served my first year in Texas. * * *

Although Texas furnishes excellent sport now, and in some parts game is still abundant, and quite easily approached, it has not lasted as well as it would have done had it not been for the great improvement in firearms, which now enables one to kill game with certainty at distances at which thirty years ago, and with the arms we then had, it would have been perfectly safe, and in fact, no one would have thought of firing at it. The arms now furnished to soldiers are excellent, and target-practice and hunting have made splendid shots of many of the men, and large game of all kinds have suffered in consequence.

ARMS OF THE PERIOD.

When I entered the service there were four kinds of firearms in use by the troops. The infantry were armed with the musket, a long, smooth bore gun using a paper cartridge, and firing a ball and three buck shot; it was an effective gun at masses at short range, say two or three hundred yards, but a man who could hit a door of ordinary size at 100 yards was lucky, for there was more luck about it than anything else. It was of course considered a good gun, and as it was more quickly loaded, it held its own against the much more accurate rifle. The musket was provided with the Maynard primer; it was in the form of a tape, and was put in a receptacle and in the lock and the little discs containing the fulminate were fed out as the gun was cocked, and rested over the tube, and were struck by the hammer, they of course saved time by obviating the necessity for capping, but the material of which the primers were made caused them to absorb moisture, and two or three at the end would always be spoiled by the dampness of the night air, even in the dry atmosphere of Texas. I always used them after we got the rifles, and had no trouble, as I would always cut off and throw away two or three of the little discs before trying to shoot, if the hammer was snapped down on to one of these damp discs it would drive it into the tube and stop it up, and further efforts of that kind only plugged the tube the tighter, and the wet paper, etc., of which the tape was made, was very hard to get out of the tube. These guns were never used for hunting except by infantry men who occasionally killed turkeys with them, but seldom hit a deer. The rifles were armed with what was called a Mississippi Yager, a coarse kind of rifle made at Harper's Ferry, and very poorly sighted. It was about thirty inches long in the barrel, and shot a round ball weighing

half an ounce, and used a paper cartridge. This was the gun with which nearly all the hunting was done by officers and men, and thousands of deer and other game have fallen before it. There was another gun in use by the mounted troops, to a limited extent; the Hall carbine. This was a breech loader, and the first one I ever saw. It had a chamber which was in the prolongation of the barrel, and looked like a part of it. By pressing on a lever on the right hand side of the barrel near the lock, this chamber was thrown up, and the cartridge was inserted in the same manner as in loading a very short pistol barrel, which this chamber resembled. Of course with a paper cartridge there was a great escape of gas and consequent loss of range in this carbine, and it was soon laid aside, though I think some of them were in use up to the time of the introduction of the Springfield rifle. The most worthless of all the arms with which we were supplied was what was called a musketoon, a sort of brevet musket. It was nothing but an old musket sawed off to about two-thirds its original length, and the rammer fastened to the barrel by a swivel to prevent its being lost or dropped when loading on horse-back; it used the same cartridge as the musket, kicked like blazes, and had neither range nor accuracy, and was not near as good as the musket, and was only used because it could be more conveniently carried on horse-back.

Then I saw a gun that belonged to Lieutenant Davant, and I have never seen one like it since. It went out of use many years ago probably. It was more like a Henry or Winchester rifle than anything else. It was rifled, and had a chamber under the barrel that carried sixteen bullets, and they were thrown up into the barrel in the same way and by the same means as are used in the Winchester and other guns of that style, by working a lever that forms the guard to the trigger. The peculiarity of this gun, in which it differed from all others that I have ever seen, was in the bullet and capping arrangement. The bullet was quite long, and was hollow, and in this chamber, at the rear end of the bullet, the powder was placed, and kept from spilling out by a thin cork, which was inserted on top of the powder, and a small hole about the size of a pin-hole was made in the cork to permit the fire from the fulminate to enter the powder and explode it. The arrangement for discharging the gun was very peculiar. In the rear of the barrel was a conical cavity, the point or small end down, which was connected with the bottom of the barrel and through which the fire passed. The caps were small round pellets, that were not uniform in size, but were about the size of a No. 5 shot, or a large pin head. When the gun was cocked one of these pellets fell into the cavity, and the hammer which had a conical head struck the pellet at the bottom of the cavity, exploded it, and discharged the gun. The corks would some times get loose from the bullets and the powder would rattle out of the bullet, and be loose in the chamber. I never saw the gun fired but once, and we had just that experience.

When Lieutenant Davant fired, the powder in the chamber that had come out of the bullets was ignited, and blew all the bullets out of the chamber, and they ricocheted along the ground like a charge of shot. That idea of having the base of the bullet long and hollow to contain the powder was perhaps the forerunner of the idea of a copper cartridge case.

THE FIRST SPRINGFIELD RIFLE.

About the year 1856 or '57 we received the Springfield rifles; they were excellent guns, of large caliber, $\frac{5}{8}$ of an inch, and had a range of over 1000 yards. Though they were only sighted for that distance, they have been improved from time to time, and have finally resulted in the present breech-loader, which is as good a gun for all practical purposes as has ever been made. I always carried an old double-barrelled shot-gun before the Springfield rifles were issued, and had cartridges containing only buck-shot, to facilitate loading. The Indians at that time were generally armed with bows and arrows, though they had many guns, and took them on raids where they were liable to have engagements with troops or citizens. At short range, say forty yards, they were more effective than any weapon white men had. The Indians fired them with great rapidity and accuracy, and could ride alongside of a buffalo and drive an arrow up to the feather in his body. It is said that at thirty or forty yards they could keep an arrow between them and the object shot at all the time, that is before one arrow would reach the object another would be shot, and on the way. I know they could shoot them much more rapidly and accurately than the ordinary frontiersman could a six shooter. Many people preferred the shot-gun, and as I had no rifle, I carried a shot-gun. In the night it was superior to a rifle, and against arrows alone it was far preferable. * * *

A PACK MULE MAIL.

When I went to Davis, they had a mail once a month, carried in the celerity wagon, of which I have given an account; that contract to carry the mail monthly was awarded Mr. George Giddings. Before he took the contract a man named Skillman had it and carried it on a pack mule monthly, for the sum of \$30,000.00 a year. An old frontiersman, Big-Foot Wallace, was in charge of it, and made the trip from San Antonio to El Paso, a distance of about 800 miles, several times alone, and had many narrow escapes, but he came out all right, and is still living on the Medina River below Castroville. He made this trip alone two or three times before Fort Davis was established, and there was not a house or a camp from Fort Clark, a distance of 700 miles. On one of these trips he stopped at the Muerto, thirty-eight miles west of where Fort Davis now is, and was sitting at the spring under the rocks, his saddle and pack mules

were picketted in front of the spring, and he was mending his buckskin pants, when he saw some gravel fall from the rocks over his head into the water, and on looking up caught a glimpse of an Indian who had just been peeking over at him. He grabbed his weapons in one hand, and the mail bags in the other, and ran or crawled along near the rocks, and by keeping close to the bluff kept out of sight of the Indian, and got into the mountains. As soon as he could get out he started for El Paso, and carried the mail through on foot, and without any pants on. He generally went in a spring wagon, and was attacked several times, but always succeeded in getting out alive, and saving the mail, too. On one occasion, Jim Dawson, another frontiersman, was with him as a passenger, and they broke the rear axle-tree of the wagon, and had to leave most of the wagon there; they had a box of provisions along, and they tied the box on the front axle-tree and rode through, driving four mules, to Fort Davis, some 300 miles, with the box for a seat. Wallace received \$250 for the round trip, and as that was about all the expense Skillman incurred, it was a pretty good contract. After a while he put spring wagons on the road, and he frequently went himself in charge. He was attacked about twelve miles west of Fort Davis, at a place afterward known at Skillman's Grove. He was prepared for the Indians, and gave them a volley, and they retired to a point beyond rifle range, as they supposed, but Skillman was armed with a new Sharps rifle, then just invented, and it has a very long range, about 1000 yards. One of the Indians stood looking over his horse; Skillman took a rest and fired a long distance and killed him. I heard Skillman tell of it soon after. He had a good supply of whisky aboard, and repeated the story several times, taking a drink each time. He said he saw the Indian standing there, and he took a rest, and fired and "knocked him ten feet;" he then took a drink and in repeating the story said he knocked him twenty yards. He kept repeating his story and his drinks, each time increasing the distance he fired and the number of feet he knocked him, and finally closed the recital by saying: "When I drew a bead on that Indian he was about eleven hundred yards off, and was looking over his horse, so that I could only see his head, and I just took him right between the eyes, and, sir, I knocked him more than forty rods." Just at this point Lieutenant Taylor poured a pitcher of cold water on his head, and with the remark, "Taylor, you can do that because you are a Kentuckian," he took another drink and switched off on to another subject.

INDIAN OUTRAGES.

About a year after I joined, arrangements were made to run a government ambulance to Clark, and bring up the mail; they had a weekly mail at Clark, while ours came but once a month. This

party was under the charge of a sergeant generally, and they had great trouble getting through; they were inexperienced in such business, and were frequently attacked, and several of the men were killed. A party under the charge of Sergeant Condell had a very rough time at Howard's Well. The party consisted of the sergeant, Corporal McNab of my company, and five men; they stopped at Howard's Well on the down trip to get dinner. When they were about through two Indians came toward them over a little hill, and they allowed them to come up to the wagon. They said they had been down in Mexico, had had a fight with the Mexicans, and had been whipped; that they were out of rations, very hungry, and wanted tobacco and powder. The sergeant gave them all they asked for except powder, and that he did not let them have. They appeared very thankful, and wanted to shake hands with the captain, as they designated the man in charge, and they shook hands with the sergeant, and after thanking the men went over a little hill. They had no sooner disappeared than the party received a volley, and the sergeant fell, with both legs broken above the knees; the others immediately laid down and piled rocks and stones in front of them, making a sort of breastworks. They kept up a steady fire on the Indians, of whom there were about sixty, till three privates had been shot through the head and killed. All had bullet holes through their clothes, and Corporal McNab had one through his cartridge-box. It was a mere question of time when they would all be killed, and they concluded to take the sergeant and try to get into a better position for defense; two of them dragged the sergeant, while the other kept up a fire on the Indians. They succeeded in dragging the sergeant about two miles, when he begged them to leave him, as he would rather die than be tortured as he was, by being pulled along with both legs broken and dragging on the ground. He told them to leave his six-shooter, and they did, and left him in the middle of the road, and retreated toward Camp Lancaster, about thirty miles back on the road. The Indians ran up on the sergeant and it was supposed he killed one of them, for the men heard a pistol shot soon after they left him. They finally reached Lancaster, and a party went out at once to the Well. They found the sergeant's body where they had left him. He was not scalped, but was stripped, and his heart taken out and cut into four pieces, and laid on his breast, and a wreath of Spanish bayonets placed round one of his ankles; this was interpreted to mean that he died bravely, and they honored him by putting the wreath on his leg.

The Indians captured the whole outfit, mail, wagon and mules, and killed four out of the seven men. This party of Indians remained on the road several weeks, and attacked several other parties. One of a sergeant and fifteen men going to Fort Davis after a flag-

staff, were corralled by them several hours, but finally drove them off after several of the soldiers had been wounded.

Lieutenant Hartz was at Lancaster at the time, and he asked the commanding officer, Captain Granger of the First Infantry, to let him take some wagons and conceal some men in them, and go up the road, and see if they would not attack him. He did so, and had about forty men with their arms in the wagons covered up with the wagon sheets, while he and Lieutenants Reed of the Eighth, and Sherburn of the First Infantry were on horseback. They went up the road toward Davis, and when they reached the Riffles on the Pecos they noticed that a large trail crossed the river there, and Hartz went across with Sherburn to look at it, and Reed left the wagons and went to the river. As it always happens, just at that time the Indians who had been hidden in a ravine charged the train. Hartz had given orders for no man, under any circumstances, to fire a gun without orders from an officer, but when the Indians came up to the train the men threw the covers off and would have fired, but old Sergeant Riley, who was senior during the absence of the officers, drew his pistol and said he would shoot the first man who fired his gun, and the Indians with a yell of surprise rode off, and not a shot was fired at them. They were within fifty yards of the train, and many of them would have been killed if the troops had fired.

They had quite a fight, and Lieutenant Hartz reported that he killed three Indians. There was a party of Indians on the opposite side of the river on a hill, and one of them was evidently a chief, and he moved the Indians from one point to another in the fight by waving a long pole and signaling with it. Hartz ordered about twenty men to lie down and take a good rest, and with their sights elevated he gave the Indians on the hill a volley, and they disappeared, and were probably very much astonished if none were killed as that was the first time the new Springfield rifles had been used against them in Texas. The ruse, though not as successful as it might have been, had a very good effect, and made the Indians very shy of trains covered with wagon sheets, and it was a long time before they attacked another when on the move. Sergeant Gulick, of my company, was attacked while in charge of the mail party at Leon Hole, and had quite a severe fight, and had some men wounded, but he repulsed the Indians and saved the mail. When the Indians cleaned out Sergeant Condell's party at Howard's Well, they tore the envelopes of the letters and threw them on the ground, and many of them were recovered by Hartz. I once received a letter from my mother that had been captured by the Indians, but not destroyed, and it was picked up on their trail and sent by Hartz to me. Carrying the mail in this way by the soldiers was very dangerous work, and they were not sufficiently experienced on the road

to do it without great risk to men and property. About 1858 the Overland Mail, via Fort Concho, commenced running, and we had a weekly Mail, until all mails were stopped by the Rebels in '61. Soldiers and citizens were frequently killed near Fort Davis during my stay there, and just before I went up there the regular mail party was jumped in Limpia Canyon, about twelve miles from the post, and captured, but I do not remember how the men fared; the Indians got the mail, and animals, but I do not think they killed the party. * * *

Hundreds of travelers were murdered by the Indians in spite of the efforts of the troops to the contrary, but without the posts the road would have been absolutely impassable, except for large parties, strong enough to protect themselves. The army was so small at that time that nothing could be attempted beyond keeping the roads clear of Indians, and keeping them outside our lines on land that was virtually given up to them.

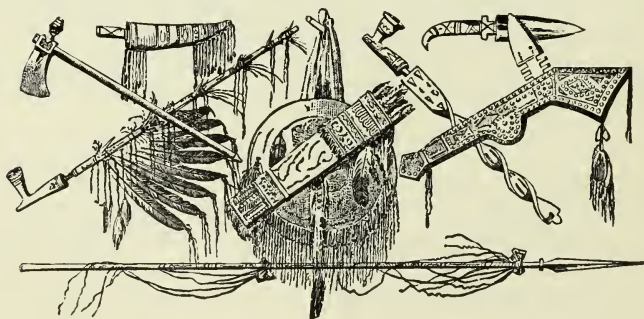
During my service I have furnished escorts to many trains, and issued rations to hundreds of emigrants, that without them might have starved, and at least could not have proceeded on their journey. The El Paso road to-day, from San Antonio to California, would appear like one long grave yard if the innumerable graves had not been leveled by the elements. I do not believe that there is a single water hole or camping ground from one end of the road to the other that has not been marked with from one to fifty graves erected by soldiers or friends over the bodies of murdered travelers. The Mexicans have a custom from the Spanish, or perhaps from the Moors, for all I know, of throwing a stone on any grave they pass, and in this way graves near the road have become quite large heaps of stones. Every one, when making a grave near the road, places over it the sign of the cross, sometimes made of two barrel staves or sticks nailed together, or a board is placed in an upright position, and a cross cut on it. These remain till blown down by the wind, or till some American comes along and takes them to kindle his fire. A Mexican would never be guilty of such sacrilege. * * *

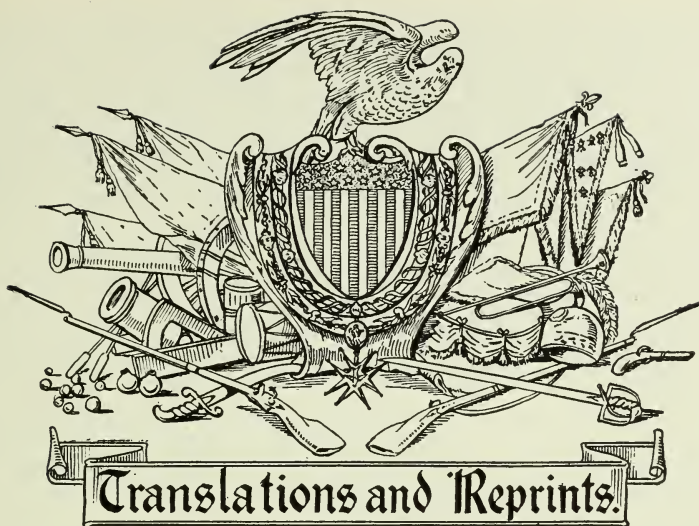
THE ARMY A PIONEER OF CIVILIZATION.

To persons living in the Atlantic States the services of the army in time of so-called peace, do not appear of much, if any, importance; but if one would think that there is not a square mile of this continent west of the Alleghenies that has not been rendered habitable by the direct operations of the army, in some way or another, they would see that the army has been a very important factor in the settlement and civilization of the country, and its services in the past, and even at the present, cannot be easily over-estimated. Many of the large cities are but the developments of small villages that were originally started at the military post lo-

cated there, for the purpose of trading with soldiers and Indians, and rendered possible only by the presence of the garrison. In the present century the line of military posts has been moved from New York and Pennsylvania clear across the continent, and there is hardly any real frontier in existence; the condition of the Indians renders the presence of troops necessary at many points in the west, but the advanced posts do not as formerly mark a line beyond which no settlements could be made and maintained. When the posts were established in Texas after the Mexican War, there was a line along the Rio Grande, very much as it is now (1886), and garrisoned by about the same number of troops; this state of affairs will exist for many years to come. There was also a line of posts running north and south through Austin, Texas; the posts were about forty miles apart, and a system of patrols was kept up between the posts, and no Indians allowed east of the line. If caught on the forbidden ground they were killed, and a scout went immediately after any party that was known to have crossed the line. When I joined, in 1854 the line had been moved west, and occupied a chain of posts running north and south, about 120 miles west of San Antonio, viz., Duncan, Clark, Terret, McKavett, Chadbourne, etc. A line had also been formed along the road from San Antonio to El Paso, and on to California, over which thousands of emigrants from the Southern States traveled to the El Dorado.

[TO BE CONTINUED.]





A CAVALRY RAID.*

TRANSLATED FROM THE NARRATIVE OF CAPTAIN ELETSE, GENERAL STAFF OF THE MANCHURIAN ARMY, BY CAPTAIN A. J. CAMPBELL, D.S.O., NINETEENTH HUSSARS.

(United Service Magazine, London.)

IN March, 1904, a detached force was ordered by the Russian commander-in-chief to penetrate into North Korea and to attempt by pushing south, round the rear of the first Japanese army, under Kuroki, to reconnoiter the lines of defense chosen and fortified by the enemy, and to do as much harm as possible to his lines of communication and convoys.

The force of thirteen officers and 500 men was composed as follows:

Sixth sotnia of Oussouri Cossacks.

A sotnia of Caucasian Cossacks (volunteers, all picked men).

Two companies of M.I. drawn from the First regiment Siberian Rifles and 15th regiment Tirailleurs.

Fifty Chunchuses for use as despatch riders.

A detachment of hospital corps, consisting of one surgeon, two assistant surgeons and some orderlies.

The convoy consisted of pack horses only. Both the officers and men had been most carefully chosen for the work.

Leaving Mukden at the end of March, the column rode to Kouan Jensian, where it halted three days to gather information concerning their proposed route. On hearing that there were no Japanese before them, the force advanced to the Yalu, which they crossed without trouble at Vanzy-Goooun, and entered Korea.

Colonel Madritoff halted at Tchkosan after crossing the river, where he was well received by the municipality and inhabitants. From thence he despatched two parties—one under Captain Bobroff,

consisting of the Oussouri Cossacks and the Fifteenth M.I. company, toward Piok Tan; and the other under Lieutenant Girs, consisting of the sotnia of Caucasian Cossacks, toward Ouiou.

While these reconnaissances were taking place the commander remained at Tchkosan. Pleased with his reception, he entertained the Korean authorities at dinner. The same night his bivouac was attacked by the soldiers of the garrison, who attempted a surprise, but were easily repulsed and fled leaving their arms and accouterments.

Lieutenant Girs on his return stated that he had also been attacked in a defile, and though he had repulsed the enemy, had suffered a loss of one killed and five wounded.

Captain Bobroff's party encountered no resistance. He brought back news that the Japanese were marching on the Yalu, and had left 1500 pounds of rice stored at Piok Tan, which he had seized and destroyed.

Lieutenant-Colonel Madritoff was informed by prisoners that the hostile attitude of the Koreans was due to Japanese influence, that all the garrisons in the north of the country had Japanese instructors, and that these garrisons, consisting of some 5000 men all told, were preparing to resist the Russian advance.

Further, he was informed that the headquarters of the Korean partisans was at Kangé.

Madritoff, astonished at the attitude of the populace to whom he had done no ill, hesitated for a moment as to his line of conduct; but as it was necessary, in order to fulfil his mission, that he should push south as rapidly as possible, he decided to defer the punishment which the Koreans so richly deserved for their treachery, and, after disarming the garrison of Tchkosan, he continued his route toward Kousan and Kangé. Evading Piok Tan, which was in the zone of action of the Japanese, the force marched east from Tchkosan to Kagosan and thence toward Boudji. The Japanese by this time had received information of the appearance of Russian patrols in their rear, and as secrecy was co-equal in importance with rapidity, Madritoff decided to leave the main road and take to the hills, moving by little-known paths, often so narrow that only one man could pass abreast. Every precaution was further taken to cover the tracks of the party as much as possible. After a long and troublesome march, a road was reached which crossed the river Tchintchingen not far from Boudji, and the force now turned south toward Khitchken. *En route*, the river valley was carefully reconnoitred, as it had been mentioned as the Japanese second line of defense (the first was the line of the Yalu), but no posts were discovered and apparently the line had not yet been taken up.

On our arrival at Khitchken we found the town unoccupied by the enemy, who, however, had amassed large quantities of provisions and forage here. All these stores were at once seized, and a part having been distributed to the poorer of the inhabitants, the remainder was burnt or thrown into the river.

Further reconnaissances revealed the fact that the Japanese lines of communication were open and almost undefended, and that all their troops were marching on the Yalu. How much harm and annoyance could have been caused them if a Russian cavalry division had been sent in our footsteps!

From the natives it was ascertained that a great battle had been fought on the Yalu, and that the enemy had lost more than

2000 dead and 6000 wounded. In support of this assertion the inhabitants declared that some Koreans had been hired to carry cases containing the heads of the dead soldiers, and that these cases were sent to Japan. As to the bodies, they were burnt.

Profiting by the circumstance that the rear of the Japanese Army was absolutely open, Colonel Madritoff decided to advance along their principal line of communication *via* Viju-Anju-Ping Yang. These towns, like Soutchken, Pak Tchen and others, were fortified and held by small garrisons numbering from 200 to 600 men. Some places had artillery, but never more than two guns. We further discovered that the Japanese were no longer disembarking their troops in Korea, but at Tatoungoon, Dagouchau and Pi-Tse-Vo. The Korean population, however, still continued to show itself hostile, giving only the vaguest news concerning the enemy, and by burying their provisions and driving their cattle into the mountains, where they concealed them in the gorges, hidden in the primeval forest and far from the road, they made revictualling difficult if not impossible.

Finding no enemy in the vicinity of Viju, it was decided to move on Anju, our leader having determined to make a reconnaissance in force in that direction. In order to avoid discovery as much as possible the column again took to the mountains, moving in a southeasterly direction through Tokchen and Kaitchen instead of following the direct route.

Late in the evening on May 9th we arrived at Kaitchen, where the force halted for four hours. That night we started for Anju, the advanced guard, composed of the Cossacks of the Caucasus, destroying the telegraph wires as we went on for some six versts.

En route we learned that the garrison of Anju had been strongly reinforced the day before, and Madritoff, therefore, altered his intention of immediately attacking the town, to enable us to verify the news.

As a serious engagement would cause many casualties, and wounded men would greatly hamper the mobility of the column, the greatest caution was necessary. On arriving, therefore, within five versts of the town, Captain Bobroff was detached with his M.I. to reconnoiter.

His orders were to gallop across the open ground surrounding the town and to gain a small rise about 800 yards from the walls where he was, if possible, to draw the fire of the garrison, who it was expected, being surprised, would show their entire strength at the point of attack.

The first part of his orders Bobroff carried out admirably, and crossing the open rapidly under an ill-directed fire, gained the rise dismounted his men and engaged the enemy. The weakness of their fire, however, led Bobroff to the hasty conclusion that they were not more than 200 in numbers, and that his own small force could cope with them. Bringing up his reserve, he addressed his men as follows:

"You see, brothers, the Japanese shoot badly. Make a sign of the cross and follow me! Hurrah!"

The company, led by its three officers, dashed to the assault cheering. At first the enemy's fire was wild and ineffectual, but on arriving about 200 yards from the wall, the Russians were received by well-directed volleys. Captain Bobroff fell mortally, and his officers both severely, wounded, together with thirty men. Our

men thereupon fell back to the cover of the ridge, where they lay down and again opened fire.

Meanwhile the sotnia of Caucasus Cossacks had been sent to attack another side of the town. They dismounted within 150 yards of the walls, opening fire and preparing to assault the fortress in conjunction with the attack of Captain Bobroff. But Madritoff, informed of the latter's want of success and estimating the garrison at 500, from the intensity of the fire, decided to withdraw. Lieutenant Piounovskii was ordered to take over Captain Bobroff's command, to recover the dead and wounded and to retire.

Piounovskii sent eight men to carry out this order, but directly they approached, they were almost all killed by the deadly fire of the enemy. Madritoff then ordered First Lieutenant of Cossacks Linévitch (son of General Linévitch, commander-in-chief) to take with him a section of the First Tirailleurs, and half a sotnia of Cossacks, and to come into action on the left of those Cossacks who had attacked the other face of the town under Lieutenant Girs. He was ordered to keep up a hot fire and to attract the attention of the garrison.

In fact, the enemy began to reply to Linévitch, and some of the M.I. profited by the distraction to approach the wounded, but they were also almost all hit.

Seeing that further attempts to rescue the wounded would only result in further loss, Madritoff ordered the position to be maintained till nightfall, hoping in the darkness to reach the place where the dead and wounded lay and to carry them off.

Such was the situation at 9 A. M., and the force had the prospect of having to maintain its position for at least twelve hours.

About 9.30 A. M. a company of Japanese, preceded by a cavalry patrol, was seen on the other bank of the river. Immediately half a sotnia of Oussouri Cossacks galloped to a bridge for which the enemy were making and set it on fire. Nevertheless the enemy dashed on to the burning bridge, to be met by the volleys of the Fifteenth Regiment and the Cossacks. They took flight and did not again appear that day.

A desultory fire was kept up with the defenders of Anju till 3 P. M. At this moment Sous-Lieutenant Eilers, who had been patrolling on the Ping Yang road and who had destroyed the telegraph for twelve versts, rejoined the main body with the information that 600 Japanese infantry were advancing along the Ping Yang road.

Shortly afterward two companies appeared, of which one advanced on Anju and the other threatened the left flank of our detachment. Lieutenant Linévitch, who was on the left flank, had no more than eighteen men in all to meet the attack; the situation was becoming critical.

Changing front Linévitch engaged the enemy's company, which advanced by a succession of rushes. Shortly afterward Captain Bodisko with the First Tirailleurs took up a position about 200 yards in rear, and enabled Linévitch to retire with his dead and wounded. Bodisko allowed the enemy to approach quite close, and then commenced volley firing. At this moment the Japanese were not sixty paces off, and the commands of their officers could be distinctly heard. Our volleys inflicted considerable loss on the foremost ranks of the enemy, who regained the walls of the fortress and did not make any fresh attacks. The fusilade kept up till dark. Our losses were one officer, nineteen men killed, and two

officers and forty-three men wounded. At 2 A. M. the detachment fell back.

After a march of fifteen versts Madritoff halted for a rest. Our soldiers, wearied by a sharp and long fight, and also by the previous night march, had not finished preparing their bivouac when the vedettes galloped in to say that they could see the Japanese, who evidently were in pursuit. Immediately, the wounded were sent off under the escort of a half sotnia of Cossacks and the force took up a position in a defile. Weakened by the escort to the wounded and convoy and the men holding the horses, barely 150 rifles were available for the firing line. The Japanese (two companies) appeared about midday and occupied a position some 200 yards from ours. The two forces remained facing each other without firing a shot for two hours, when the enemy retired. Probably they mistook our force for the advanced guard of a stronger column. They could not believe that so weak a force would have the audacity to venture unsupported in rear of an entire army.

After having destroyed his convoy, which hampered his march, Madritoff fell back on Toktchen passing by Kitchkhen. The wounded were carried by impressed Koreans. While on the march the two groups of mounted infantry were formed into a sotnia under Lieutenant Girs and were despatched to reconnoiter the country between Gensan and Khamkhyng which lay to the east. At about sixty versts from Gensan, Girs learned that this town was occupied by 2000 Japanese with artillery, and that the enemy's third line of defense from Gensan—Ping Yang—was not entrenched. Girs then marched on Khamkyng. The Korean garrison, 600 strong, welcomed him with volleys. Having taken the town Girs, to punish the inhabitants, set fire to it, and in three hours it was completely destroyed. His force now moved on Tchentchjine and rejoined the main body under Madritoff at the village of Bemouri at the moment when the latter was sharply engaged with the Koreans, who had occupied a defile in an attempt to cut our line of retreat. The enemy having been dispersed, the column passed, on the 23d May, the town of Tchentchjine, abandoned by its inhabitants and the garrison, who had retired to the fortress of Kouï.

On the 27th May Lieutenant Linévitch was detached with half a sotnia to seize, and hold at all costs, the village of Tchoumak-Kori until the column arrived.

Our leader took this precaution as this village commanded the road to the Yalu and the Koreans might mass their forces there to bar our passage.

Linévitch occupied the village with a loss of one Cossack wounded and three horses killed and on the arrival of the column the Koreans were driven from the heights they had occupied and pursued in the direction of Kangé. There being no need to attack this place Madritoff, after burning forty-eight villages, whose inhabitants had, of their own accord, fought against us, fell back on the Yalu.

On the June 1st we recrossed the Yalu, under the fire of the Koreans, who had sniped continually during our retirement. After crossing the river the force marched on Kouanjensian, discovering there a force of the enemy, consisting of cavalry and infantry with four guns.

Evading these, Madritoff now rejoined the left wing of the Russian Army, bringing with him all his wounded and the information he had been sent to acquire.

The raid had lasted two months.

THE SADDLE-HORSE OF KENTUCKY.

(N. Y. Herald.)

"THE saddle-bred saddle-horse of Kentucky owes his present popularity among New York equestrians to points which no other horse possesses," said Charles L. Railey a few days ago. "And what are the points of the saddle-bred horse?" Mr. Railey was asked.

"The true saddle-horse is as lithe and supple as a cat, to begin with," the Kentucky horseman replied. "This is one of the distinguishing characteristics of the saddle-bred horse, and I am disposed to place it above all his other qualities. There is a certain elasticity and springiness about him, at whatever gait he is going, which make it possible for horse and rider to respond to each other's movements and become one, as it were. The ordinary horse seems hard and dead under you by comparison. He lacks elasticity, without which there cannot be perfect harmony between horse and rider. A cold blooded horse never has this quality. It is found in the thoroughbred to a certain degree, and sometimes to a high degree, but its highest development is in the saddle-bred horse descended from Gaines' Denmark.

"In conformation and in action there is not so much difference between the saddle-horse and the harness horse as many persons suppose there is. Indeed, some of the best horses I have known were almost equally good in harness. The crossing of the saddle-bred horse with some of the Morgan trotting strains, like Blood's Black Hawk, Morgan Rattler and the Golddusts, has produced many prize winning park horses.

"Both the saddle-horse and the harness horse must have quality or fineness of fiber. A graceful top line, with the croup high and the tail well set and well carried, is as essential to one as to the other. But the true saddle-horse should have what the English term riding shoulders; that is, oblique shoulders with sharp, high withers, not thick or meaty. The oblique shoulder gives easy action. I have, however, seen a few straight shoulder horses that were good saddle-horses, but as a rule such horses have a stiff, jolty way of going.

"The saddle-horse should trot with quite a bit of knee action; otherwise he is likely to be a stumbler. Then again, he should flex his hocks well at the trot, so as to throw the rider up in posting, or rising to the trot, as the expression is. The excessive knee and hock action of the high stepping harness horse would be objectionable, of course, yet, I like to see enough of it both fore and aft. Above all, however, the trot must be square and regular and somehow give you the sensation all the time of going up hill.

"On a horse so gaited the trot is an easy gait to both horse and rider—a good deal easier to the horse, in fact, than the single foot would be for anything like a long journey. No single footer could live it out with a trotter in a ride from Fifty-ninth street out to the Suburban Club, for example. The trotting horse would swing along at twelve or fifteen miles an hour quite handily; while it would be cruelty to force a single footer to go at that rate of speed over so great a distance without shifting to some other gait. As someone has well said, the horse at a single foot bears his own weight and that of his rider all on one leg at one time. At a trot the weight is

always distributed between two legs, the horse forming a complete arch with one foreleg and one hind leg every time he touches the ground. The single foot and the fox trot are certainly easy gaits for the rider."

"How long does it take to transform the raw material into the finished product in saddle-horses?" Mr. Railey was asked.

"Usually about one year," was the answer. "A well-trained saddle-horse must guide by the neck. He must walk at a good pace when you want him to walk, and must trot at any rate of speed and hold that rate until he gets the signal to go faster or slower or change his gait.

"Right here is where the average thoroughbred horse becomes an impossibility as a first-class saddle-horse. He is too hot headed and impatient. If another horse comes along beside him on the bridle path going a faster gait it's ten to one that his inherited racing instinct will come to the surface and make him restive, if he does not break away and run. No well-mannered saddle-horse will do this under any circumstances.

"Manners are everything, particularly in a woman's saddle-horse. If he will shy, or if he fights the bit, or has any other bad habit of this kind, he is next to worthless for riding. The importance of good manners is illustrated in the scale of points which sometimes governs the saddle classes at the horse shows. Very often manners count for fifty points in a total of one hundred where ladies' horses are under consideration."

* * * * *

The pick of the saddle-bred horses of Kentucky and the Southwest are now brought to the New York market, undeveloped in their inherited tendency to go the modified pacing gaits, and trained only to the walk, trot and canter. Their tails are docked and their manes are pulled, and in all respects their metamorphosis into saddle-horses of the approved European type is complete. New York dealers, who formerly obtained their raw material in Canada and the Northeastern States, now go to Kentucky regularly every summer and winter, and they seldom go elsewhere when riding horses of high class are wanted.

The plain gaited horse, now in almost universal use east of the Alleghany Mountains and north of Mason and Dixon's line and rapidly coming into fashion in all parts of the North and West, is still tabooed by the American Saddle Horse Breeders' Association. There is at present no organization of those who favor and would foster the plain-gaited horse, nor is there any stud book designed to establish a breed of saddle-horses of this type, no amount of merit being sufficient to entitle them to registration in the existing stud book of the A. S. N. B. A., unless they can go the five gaits prescribed by the rules of that association.

These gaits are the walk, trot, canter, single foot and fox trot. The single foot and the fox trot are modifications of the pacing gait, and are now virtually unknown except in the saddle-bred horse of the South and West, better known as the Kentucky saddle-horse, and by his admirers asserted to be the only distinctively American saddle-horse.

The single foot is sometimes called the rack. In this movement the hind foot strikes the ground an instant before the fore foot on the same side, then the other two feet are moved and strike in the same way, so that the four strokes of the revolution, while distinct, are in

pairs, sounding to the ear, one, two—one, two. As the speed of the horse is increased the interval between the strokes becomes less and less until it is lost and the gait becomes a square pace.

The fox trot is best described as a running walk, and in this gait, as in the single foot, there are four distinct impacts in the revolution.

From the earliest times to the present day the single foot and the fox trot have been highly prized in the saddle-horse of the South and the West. No animal, however perfect in other respects, is there deemed to be a real saddle-horse unless he possesses these gaits. They are the basis of the saddle-horse breeders' stud book and the distinguishing characteristics of a breed of horses which has been formed through that register of pedigrees, just as speed at the trotting gait is the distinguishing characteristic of the standard bred trotting horse and the test of qualification for admission to the trotting register.

Partisans of the gaited saddle-horse assert that in olden times the racker, or the single-footer, found favor in the East, as well as the West, and John H. Wallace, in "The Horse of America," cites Gervaise Markham, a writer of the sixteenth century, to prove that the modified pace was then the fashionable gait for saddle-horses in England.

As late as 1776 Silas Dean, who was sent to Paris during the War of Independence to enlist the aid of France for the Revolutionary colonies, wrote in a communication to the Secret Committee of Congress:—"I wish I had here one of your best saddle-horses, of the American or Rhode Island breed; a present of that kind would be money well laid out with a certain personage." The "Rhode Island breed" was the then widely known tribe of Narragansett pacers. It is supposed that the "certain personage" referred to was Marie Antoinette.

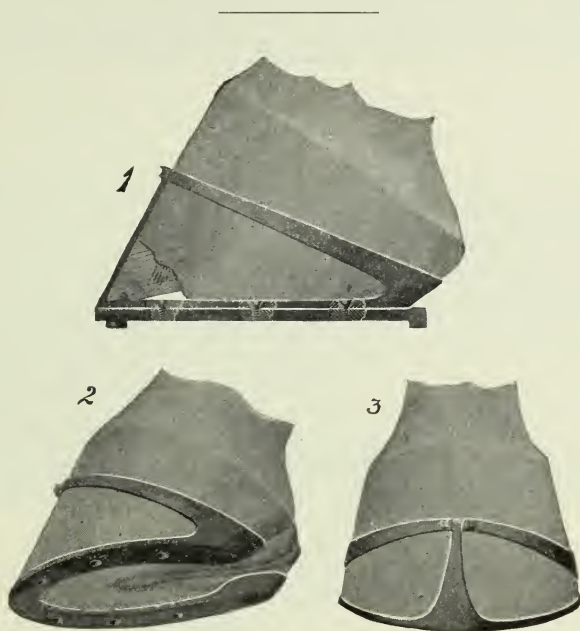
Practically all of the saddle-bred horses of to-day in the Southwest are descendants of Gaines' Denmark. What Rysdyk's Hambletonian was to the breed of trotting horses Gaines' Denmark was to the tribes of Kentucky saddle-horses. He was a black stallion, foaled in 1851, and was got by the thoroughbred race-horse Denmark, a son of imported Hedgeford, out of a pacing mare by the pacing horse Cockspur. Mr. Charles L. Railey says that Gaines' Denmark was a natural racker, or single-footer, and was a horse of remarkable beauty, particularly in his head and neck and his full, well set and gracefully carried tail. These characteristics, Mr. Railey says, have come down to the descendants of old Denmark in the present generation, distinguishing them from all other families of horses. The beauty of the original stock has been improved with each generation until they are now generally admitted to be the handsomest horses in America.

The careful training and intimate association with their masters which the saddle-horses alone are subject to have likewise improved the intelligence and docility of the family in a marked degree.

So successful have the saddle-horse breeders been in their efforts to fix the single foot and the fox trot as instinctive habits of action in the breed that nowadays it sometimes happens that a foal by the side of its dam will take to one of these peculiar gaits untaught and purely of its own accord.

All forms of the modified pace for horses under saddle long since ceased to be fashionable among New York equestrians, though a gaited horse is now and then seen on the bridle-paths. The single

plicity, being stamped in a single piece out of mild sheet steel, one-foot and the fox trot are ignored as saddle gaits at the National Horse Show, just as the square pace is ignored at a proper gait for the light-harness horse. At Madison Square Garden and all other leading Eastern exhibitions the walk, trot and canter or short gallop are the only saddle gaits now recognized.



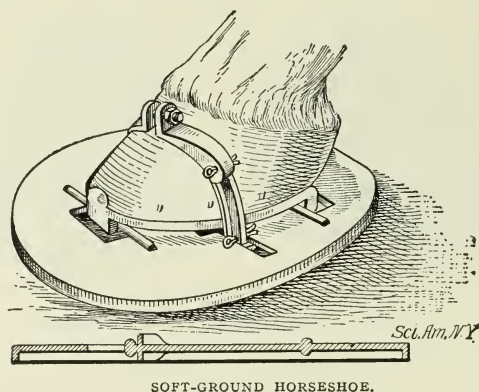
INVENTION IN HORSESHOES.

(Scientific American.)

A NAILLESS DEVICE FOR ATTACHING HORSESHOES.

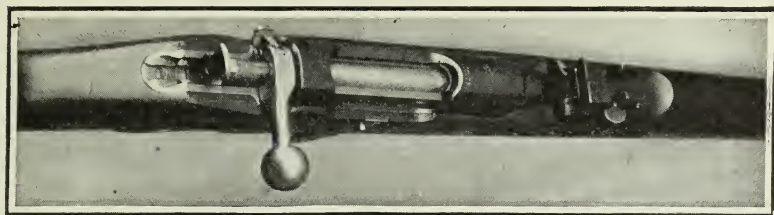
IT IS well known that the common method of shoeing a horse by nailing on the shoe is not only primitive in the extreme, but also very injurious to the hoof. This is especially true of the thoroughbred horse, whose hoofs have a much thinner shell than have those of a coarser-bred animal. Furthermore, a race-horse must be shod with a special racing shoe before each race, and immediately after the race this shoe must be torn off and replaced with an exercising shoe. As a result of this constant changing of shoes, the hoofs are in time so badly torn as to seriously cripple the horse. To remedy these conditions inventors have long been endeavoring to devise a horseshoe that could be applied without the use of nails; and while some very clever inventions have been made, most of them have been too complicated or expensive to compete with the common horseshoe. In the accompanying engraving we illustrate a very simple device for attaching shoes to horses' hoofs without the use of nails. This device, which is properly called a horseshoe carrier, is the extreme of sim-

eighth inch thick and bent to the required shape. It will be noted that the carrier is formed with a toe piece, and with two side bands extending forward from the heel ends of the device. These bands and the toe piece are joined by a bolt, thus firmly holding the carrier to the foot, because the hoof at the sole has a larger circumference than at the point where the bands encircle it, as best shown in Fig. 3. At the rear ends of the carrier, cups are formed to receive the heels of the hoof. These cups prevent the carrier from spreading open and slipping off the hoof. This is a most valuable feature of the invention, for it obviates the necessity of binding the rear ends of the carrier together with a cross-bar, and thus avoids that circular constricting pressure which has been the chief failing of many previous inventions. It is claimed for the horseshoe carrier, that it will greatly reduce the cost of horseshoeing. The shoe proper is attached to the carrier as shown on Fig. 1, by means of screws or countersunk rivets, so that it can be removed from the carrier when worn out, and another shoe attached. Also this method greatly diminishes the difficulty of shoeing a restless horse, as, before applying it to the hoof, the shoe is first made fast to the carrier, and then the carrier with the shoe attached is put on in half a minute, and made fast by the turning of a single bolt. A shoe of paper, india-rubber, leather, or any other material can be as easily attached to these carriers as an ordinary shoe. * * *



SOFT-GROUND HORSESHOE.

It is understood that quite a demand has recently arisen for soft-ground horseshoes, that is, broad, flat shoes which, owing to their large area, will prevent the feet of horses from sinking unduly into the ground. A simple shoe of this type has recently been invented, which is so designed that it can be easily reversed. The advantage of this design will be particularly felt in winter-time, as the shoe is prevented from balling up with snow. As the reversible shoe is smooth at one side, it will be found advantageous for use on horses when mowing lawns. It consists of a plate with a flange projecting from one face along the periphery and formed with slots to admit the calks of a horseshoe. Ribs on the plate prevent the calks from sliding back and forth on the plate. At each side a T-slot is formed to admit the head of a clamping strap. The two straps are bolted together over the hoof of the horse, as shown. One of the straps is formed of two members which are adjustably connected by means of a pin. This permits of adapting the shoe to different sizes of hoofs.



ONE CARTRIDGE IN THE MAGAZINE AND ONE IN THE BARREL.



FOUR CARTRIDGES IN THE MAGAZINE AND ONE IN THE BARREL.

AN AUTOMATIC CARTRIDGE-COUNTER FOR MAGAZINE RIFLES.

BY DR. ALFRED GRADENWITZ.

(*Scientific American.*)

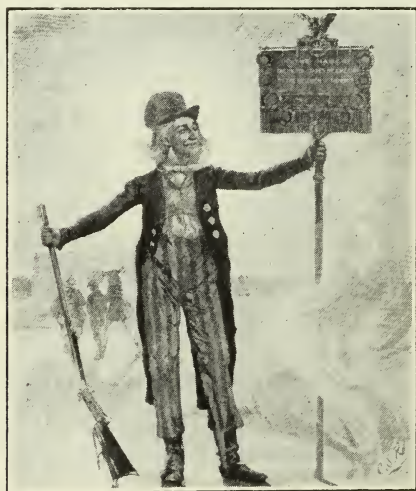
EVER since magazine rifles were introduced into current practice there has been a need for a device enabling the number of cartridges left in the magazine to be ascertained readily without opening any part of the rifle. In fact, numerous instructions issued for infantry troops oblige both the riflemen and commanders to bear in mind at any moment the amount of ammunition remaining in the rifles. Now, if the magazine has to be emptied in order to ascertain the accurate number of cartridges left, there will be a loss of time and, under certain conditions, some danger, quite apart from the risk of losing some ammunition dropping out of the magazine. Moreover, the attention of the men will be diverted completely from the enemy, or from the commander.

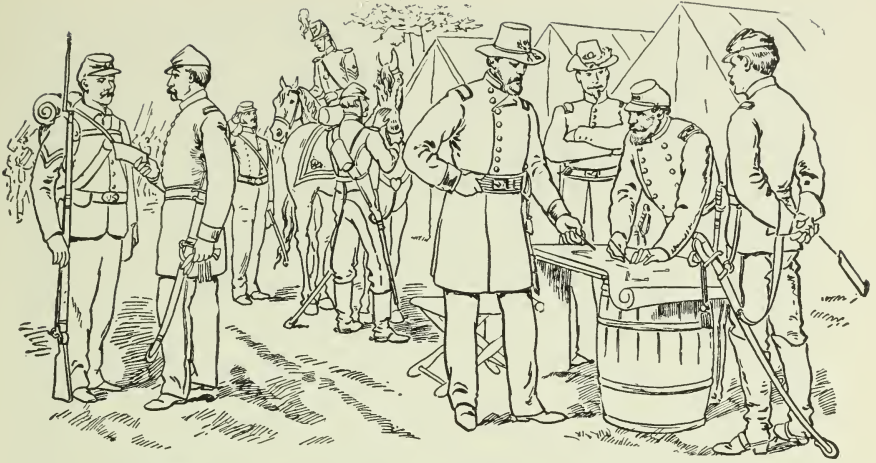
An apparatus invented by Dr. Gottardi, of Innsbruck, will doubtless be welcomed in military circles. This cartridge-counter is an extremely simple device, causing a number of checking buttons corresponding to the number of cartridges left in the magazine to project in a readily visible and touchable manner from the right-hand wall of

the magazine. This device is readily adapted to any kind of magazine rifles, as also to pistols.

Our illustrations show the cartridge-counter as adapted to type 95 of the Austrian rifles. The supporting spring of the magazine is somewhat modified, and is narrowed toward its end, while its cross-section is increased, so that the power of the spring is augmented. The counter is situated at that point on the rifle where the rifleman, in the "clear" position and in pointing, keeps his left hand, so as to enable him readily to ascertain the condition of the magazine without inspecting or touching the apparatus.

Special advantages will be derived from this device, not only the by men, but also by commanders, who will be able to watch either with the naked eye or with a field-glass the condition of the magazines of their men.





Comment and Criticism.

"Military Government and Martial Law."

Brigadier-General John W. Clous, U. S. A.

Major Birkhimer is deserving of much credit for the preparation of the second edition of his work on "Military Government and Martial Law." His first edition was no doubt of much value to army officers during the Spanish-American War and the military administration of affairs in the insular possessions resulting therefrom.

His style is clear and vigorous. His work shows great research. He pays a well-deserved compliment to the military of this country when he says that no portion of the community is more deeply imbued than they with devotion to the principles of civil and religious liberty (pages 423 and 424). At no time was this more clearly demonstrated than at the close of the Civil War, when, by the Reconstruction Acts, an unwelcome task of great responsibility was imposed upon the officers of the army. Instances of abuse of the great powers conferred upon them was indeed rare. They discharged their difficult duties faithfully, assisting their former foes in rebuilding their fallen fortunes, and protecting the weak and oppressed, thus earning the respect of the former and the gratitude of the latter. Indeed, the measures put in force by the military for the amelioration of a distressed people formed important precedents and guides for our administration in Cuba, etc., at the close of the Spanish-American War. The conduct of civil affairs under the

military in our insular possessions affords testimony of high character of the ability, integrity and patriotism of our officers.

In the introduction to his work the author eulogizes Dr. Francis Lieber for his preparation of his "Instructions for the Armies in the Field" of April, 1863. By the adoption of these instructions the United States has indeed taken the lead in formulating a code of the laws of war notable for its humanity and comprehensiveness. It has become the model for all subsequent codifications of this character. In speaking of Dr. Lieber's "Instructions" Sheldon Amos, in his book on "Political and Legal Remedies for War" (page 217), says: "This is a matter of some interest, because of the close relationship observable between these 'Instructions' and the regulations of the so-called 'Prussian Military Code'—a code which has never been published, but the substance of which can be pretty accurately collected from the constant references made to it by the Prussian commanders in the proclamations and manifestoes issued in the course of the late invasion of France. The instructions here referred to were, in fact, the first attempt to make a comprehensive survey of all the exigencies to which a war of invasion is likely to give rise; and it is said on good authority that, with one exception (that of concealing in an unoccupied district arms or provisions for the enemy), no case presented itself during the Franco-Prussian War of 1870 which had not been provided for in the American "Instructions."

The chief value of Major Birkhimer's work is that it furnishes the army officer a guide in giving him a collection of cases arising in the administration of military government and martial law and affords the student a ready book of reference in his preparation for his duties as an army officer. In speaking of this work on these lines it is necessary to call attention to some of its features wherein the author gives expression to conclusions and sets up doctrines in opposition to the law as expounded by the courts, followed by the executive departments and taught in the text-books in use at the Military Academy. It requires no argument that there should be harmony in the teachings of the Academy and those of the service schools. In the latter the author's work is to be used as a text-book; in the former, Davis's "Military Law" contains all that is taught on the subject of martial law: their teachings are antagonistic.

Before taking up the divergent points attention is invited to the fact that in discussing military government and the war powers of Congress, the author, on page 51 of his work, makes the statement that "one of the powers *expressly* given Congress is to provide for the common defense and general welfare of the United States," and in a foot-note cites Sec. 8, Art. I of the Constitution in support thereof. The only place in the article cited, where the phrase "to provide for the common defense and general welfare" occurs is in its first

clause wherein it states that Congress shall have power "to lay and collect taxes, duties, imports and excises, to pay the debts and provide for the common defense and the general welfare of the United States." The author is in error when he asserts that this clause confers substantive powers and a definite grant upon Congress in the matter of common defense and general welfare. There was indeed a time when this provision of the Constitution was the subject of violent controversy. Some persons who opposed the adoption of the Constitution held that it did confer independent powers upon Congress in the matter mentioned and therefore, notwithstanding the subsequent enumeration of specific powers, created a general authority in Congress to pass all laws which they may deem necessary for the common defense or general welfare, thus creating an unlimited national government; whereas, from the very origin it was contemplated the Constitution to be the frame of a national government of special and enumerated scope (Story 905 *et seq.*). But it has been conceded for more than one hundred years that the only distinct and substantive power granted in the clause in question is the power of taxation, and that the words "to pay the debts and provide for the common defense and general welfare" contain the purposes to which the power is to be limited. For a proper interpretation nearly all writers on constitutional law interpolate the words "in order" between the two phrases discussed, and this interpretation is now unquestioned. (Story's Com. on the Constitution, 905 *et seq.*; Miller on the Const., 231; Black on the Const., 156; Flanders Manual, 5th Ed., 87; Pomeroy's Const. Law, 273; Cooley, Principles of Const. Law, 54; Andrews American Law, 316.)

The author, in the introduction to his work and in discussing the question of martial law, as a domestic fact, adopts and endeavors to defend the minority opinion of the Supreme Court of the United States in the Milligan case, to the effect that Congress had the power under the Constitution to institute martial law. To support his views he attempts to controvert the argument of Judge Hare, an eminent writer upon the Constitution, wherein the position is maintained with great force that the right in question is one beyond congressional power. He quotes from Hare's American Constitutional Law, pp. 954 and 955 on the subject of martial law as follows:

Military action should be prompt, meeting the danger and overcoming it on the instant; it cannot, therefore, afford to await on the deliberations of a legislative assembly. On the other hand, an act of Congress authorizing the exercise of martial law in a State or district gives the military commander a larger charter than the end in view requires, or is consistent with freedom. Armed with the sanction of positive law, he need no longer consider whether his acts are justified by necessity. He may abuse the undefined power intrusted to his hands, and destroy life, liberty and property with

out the shadow of an excuse, on the idle report of a rumor that will not bear the light. The martial law power is essentially executive in its nature; it is not expressly given to Congress; the exercise by the latter would seem to be in derogation of those rights of life, liberty and property secured to the citizen by the fourth, fifth and sixth Amendments to the Constitution, and therefore beyond the range of implied powers.

In opposition to these statements the author (page 38) states:

In remarking upon the objections to the exercise of martial law powers by Congress the last can best be considered first. In making it the commentator appears to have overlooked the decision of the Supreme Court of the United States, *II Wallace 268* (the case of *Miller vs. U. S.*). It was there held that the amendments in question interposed no obstacles to the exercise by Congress of the war powers of the government. Sec. 6 of the Act of July, 1862, rendered confiscable the property of any person, who, owning property in any loyal district, should give aid and comfort to the Rebellion. The person might be living on this property in a state of profound peace. The amendments relied upon by Mr. Hare afforded him no protection; such was the decisions of the court. The act was declared to be constitutional.

It is difficult to perceive how Congress can have such authority as the Supreme Court here declared it had, and yet not have constitutional power to declare martial law. The latter could not place the property of citizens more at the mercy of the government than the Act of July 17th did in the cases specified.

It is difficult to understand by what process of reasoning the author of the work under consideration brought the Confiscation Act of 1862, and the decision of the Supreme Court of the United States under it, into his argument in support of his theory of the existence under the Constitution of congressional power to declare martial law. There is no legitimate connection between the power exercised under the Confiscation Act and that supposed to exist authorizing martial law. But the case of *Miller vs. U. S.* speaks for itself. *Miller* was a resident of the Confederate States, being the owner of certain stocks in a Michigan Corporation; they were confiscated under the provisions of the Act of July 17, 1862, upon proper condemnation proceedings in the Circuit Court of the United States for the Eastern District of Michigan. The case came before the Supreme Court of the United States upon a writ of error, the principal contention, having any bearing upon the present discussion, being that "the act in question was enacted in the exercise of the sovereignty of the Government over the whole people of the United States, and not in the exercise of the right as a belligerent under the laws of nations. Hence, the act was not valid unless it was in conformity with the Constitution. The 5th and 6th amendments of the Constitution contain certain restrictions upon the legislative power and are material to this case * * *" and further that the act being in substance a penal statute was repugnant to the amendments cited and therefore unconstitutional. In other words, it was contended that

the legislation in question belonged to the domain of municipal law and did not have its foundation in the domain of international law, viz.: in the laws of war under the war power granted in the Constitution.

The Supreme Court in substance negated this contention and held that the act in question, in so far as it referred to the subject of confiscation, was enacted under the exercise of the war powers of the Government; that these powers were, by the Constitution itself, not expressly restricted, and were therefore powers to prosecute the war in accord with the laws of nations. Among these powers of a belligerent, the court says, is the right to confiscate the property of all public enemies, that this confiscation was not because of crime, but because of the relation of the property to the opposing belligerent, a relation in which it has been brought in consequence of its ownership; that it is immaterial to it whether the owner be an alien or a friend or even a citizen or subject of the power that attempts to appropriate the property, that in either case the property may be liable to confiscation under the rules of war; and that all the classes of persons described in the 5th and 6th sections of the Act of July 17, 1862, were enemies under the laws and usages of war.

It requires no argument to show that the laws of war are not self-executory and that therefore to put in force the belligerent right of confiscation of enemy property it required legislative enactment to prescribe the mode of procedure. From what has been stated by the Supreme Court it is clear that it was bound to hold that the 5th and 6th amendments did not restrict the belligerent powers of the Government. It would indeed have been a strange doctrine that the Federal Government, however strong, in a conflict with a foreign foe, should be manacled by the Constitution and helpless at the feet of a domestic enemy for it is well settled that when in a domestic war the rebels are conceded belligerent rights the laws of war come into force precisely as though the contest was between foreign and independent nations. The amendments cited are peace provisions of the Constitution and like all conventional and legislative laws and enactments are silent *inter arma* when *salus populi suprema est lex* (John Quincy Adams' Debates in Congress, 1836).

As an illustration of the extent to which belligerent powers over enemy property may be carried under international law let us suppose for argument's sake that England or France are engaged in a war against the United States. Mr. J. P. M., a resident and citizen of New York, residing in that city and loyally supporting the Government, would become a public enemy in so far as the affairs of his firms in London or Paris were concerned, and the property of either of them situate in the United States, would become theoretically confiscable as enemy property under the laws of war (see Risley

Laws of War) by the Government of the United States; the Constitution would afford him no protection.

From this analysis of the opinion of the Supreme Court of the United States and its decision, as to the source under which the Confiscation Acts were legitimately enacted it is clear that nothing can be deduced therefrom in favor of the theory that under the Constitution Congress has power to institute martial law. It has been shown beyond controversy that the subject of confiscation belongs to the domain of international law and the author himself in his work classes martial law in the domain of municipal law. It follows, therefore, that the statement of the author in opposition to Judge Hare's position is founded upon a misconception of the Miller case and hence does not diminish or affect the force of the commentator's argument that the institution of martial law as a domestic fact is not a congressional power. Nowhere is there the remotest basis for holding that these amendments did not prevent the institution by Congress of martial law because the Supreme Court decided that the 5th and 6th amendments did not limit the belligerent powers of the Government.

In further support of his theory of the martial law powers of Congress the author remarks: "The Act of March 3, 1863, placed the liberty of the subject at the will of the President. This has also been held as constitutional by the Supreme Court. If the martial law power of Congress needed vindication, it was in these acts, in the act amendatory to the latter and in the decisions of the Supreme Court sustaining authority exercised under these acts," and he cites the cases of *Miller vs. U. S.*, 11 Wall. 268; *Tyler vs. Defrees*, ib., 331; *Bean vs. Beckwith*, 18 ib., 510; *Beard vs. Burts*, 95 ib., 438; *Kirk vs. Lynn*, 106 ib., 315; *Mitchell vs. Clark*, 110 ib., 633.

The case of *Miller vs. U. S.* has already been discussed and disposed of; the case of *Tyler vs. Defrees* is of the same class and was disposed of by the court on the principles laid down in the *Miller* case. The case of *Kirk vs. Lynn* belongs to the same category. The remaining cases have for their basis the indemnity legislation of Congress of March 3, 1863, and May 11, 1866.

"For most of the acts" of the individuals covered by this legislation, the Supreme Court says: "there was constitutional power in Congress to have authorized them if it had acted in advance. It is possible in a few cases, for acts performed in haste and in the presence of overpowering emergency, there was no constitutional warrant anywhere to make them good."

"That an act passed after the event, which in effect ratifies what has been done and declares that no suit shall be sustained against the party acting under color of authority is valid, so far as Congress could have conferred such authority before, admits of no reasonable doubt. These are ordinary acts of indemnity passed by all governments when occasion requires it."

In the opinion of the writer of this article there is nothing in the legislation in question nor in any of the cases arising under it which either controverts Judge Hare's position or contributes any legal support to the theory of the martial law power of Congress set up by the author of the work under discussion.

In support of the same theory, on page 42 the case of *Luther vs. Borden* is quoted. But this case decides no federal question. In the *Milligan* case the Supreme Court explains its former decision and says:

It is contended that *Luther vs. Borden*, 7 How. 1., decided by this court is an authority for the claim of martial law advanced in this case. This decision is misapprehended.

* * * * *

The court held that a State "may use its military power to put down an armed insurrection too strong to be controlled by the civil authority," and if the Legislature of Rhode Island thought the peril so great as to require the use of its military forces and the declaration of martial law, there was no ground on which this court could question its authority; and as *Borden* acted under military orders of the charter government, which had been recognized by the political power of the country, and by the State Judiciary, he was justified in breaking and entering *Luther's* house. This is the extent of this decision. There was no question of declaring martial law under the Federal Constitution and the court did not consider it necessary even to inquire "to what extent nor under what circumstances that power may be exercised by a State."

This comprehensive review of the Supreme Court of its own decision leaves nothing in the *Luther vs. Borden* case which might give color to any theory of martial law power by Congress. There is another material point which the author has overlooked in considering an analogy between the exercise of legislative powers by a State and by the national government. The presumptions attaching to an act of a State legislature are the reverse from those governing an act of Congress. The former is presumed to be valid unless the particular power exercised therein has been denied the legislature by the State or Federal Constitution; the latter to be valid, the authority exercised must have been granted in the enumerated or implied powers of the Constitution. Reducing the matter to a postulate, we are confronted in the one case with a positive pregnant with a negative and in the other with a negative pregnant with a positive. We must not forget, however, that the fourteenth amendment of the Constitution of the United States forbids any State to "deprive any person of life, liberty or property, without due process of law * * *," which was passed subsequent to the *Luther vs. Borden* case, and concludes a State legislature from passing any act declaring martial law. The provisions of the 5th amendment to the Constitution, which are limitations upon the federal powers alone, are thus extended to the States.

As an additional proof of the power of Congress to institute martial law the so-called Reconstruction Acts are quoted by the author (page 481). These acts, the power under which they were enacted and their scope, are fully discussed by the Supreme Court in the case of *Texas vs. White*, 7 Wall., 227. The first question at issue in this case involved at once the consideration of the power under which the so-called Reconstruction Acts were enacted. It was maintained by one side that Texas was not one of the States of the United States because it was held and governed by other States as a conquered province (Act of March 2, 1867). The Supreme Court through Chief Justice Chase answered this question by stating that

the Constitution, in all its provisions, looks to an indestructible Union, composed of indestructible States; the ordinance of secession was absolutely null. The obligations of the State as a member of the Union remained unimpaired, but during the Civil War the rights of the State as a member, and of her people as citizens of the Union were suspended. The government and the citizens of the State, refusing to recognize their constitutional obligations, assumed the character of enemies and incurred the consequences of rebellion.

These new relations imposed new duties upon the United States. The first was that of suppressing the rebellion and the next was that of re-establishing the broken relations with the Union.

The authority for the performance of the first had been found in the power to suppress insurrection and carry on war; for the performance of the second authority was derived from the obligation of the United States to guarantee to every State in the Union a republican form of government.

In the exercise of the power conferred by the guarantee clause, as in the exercise of every other Constitutional power, a discretion in the choice of means is necessarily allowed. It is essential only that the means must be necessary and proper for carrying into execution the power conferred.

* * * the power to carry into effect the clause of guarantee is primarily a legislative power, and resides in Congress.

The Thirty-ninth Congress had adopted measures for the reorganization and restoration of the States lately in rebellion, but nothing in the case under consideration, the Supreme Court said, required it to pronounce judgment upon any particular provision of these acts nor did the court find it necessary to inquire into the constitutionality of this legislation so far as it related to military authority or to the paramount authority of Congress.

There is nothing in all this to predicate the theory that Congress has general powers under the Constitution to institute martial law. The power here used is traced by the Supreme Court to the guarantee clause of the Constitution. It is true that the agency to carry out the measures desired in a matter expressly within the constitutional powers of Congress was the army. Congress could have chosen any other means and was not necessarily restricted to the

military, it might have employed any other agency—the Freedmen's Bureau, for instance. The powers conferred in the acts in question were not unlimited in scope, nor did their exercise rest upon the doctrine of necessity, which is the justification for martial law. The Acts established a government under military control for the accomplishment of a definite and specific purpose within the paramount authority of Congress, namely that of the establishment of loyal and republican State governments (Acts of Congress March 2, 1867, March 23, 1867, and July 19, 1867. 14 Stat. at Large, 428; 15 ib., 2, 14).

General Canby, one of the commanders of a Reconstruction District annulled a decree in equity regularly made by a competent judicial officer within his jurisdiction. The Supreme Court of the United States held his action to be void as an arbitrary stretch of authority. (*Raymond vs. Thomas*, 91 U. S., 712.)

In concluding this subject it will not be out of place to refer to the author's own admission that the theory of congressional martial law power is squarely opposed to the majority opinion of the Supreme Court in the *Milligan* case. The decision of this case has become the law of the land. This follows from Art. VI, Sec. 2 of the Constitution which provides that "this Constitution and the laws of the United States, which shall be made in pursuance thereof, * * * shall be the supreme law of the land. * * *" It is an accepted rule that the judgments of the United States courts, expounding a statute, construing the Constitution or adding a new rule to the vast body of judicial legislation within their respective jurisdiction, are as much laws of the United States as the formal acts which have been passed by Congress and have received the assent of the President. The character of supremacy belongs to all these; the language of the Constitution is general, and includes every form and species of legislation which can exert a binding force upon the citizens. As thus paramount the judgment of the Supreme Court of the United States must control the executive and the Congress as well as private citizens. It is hardly necessary to cite judicial authority in support of these statements. The whole history of the Supreme Court is an authority. The several important and leading cases involving the construction of the Constitution and a judgment as to the validity of a statute of Congress or of a State legislature or act of an executive officer, the question as to the national judiciary being the final arbiter as to the meaning of the Constitution was raised and examined by the Supreme Court of the United States with a cogency of argument which was never and never can be answered. In proof of this it will be sufficient to refer to the cases of *Martin vs. Hunters Lessee's*, *Cohen vs. Virginia*, *Ableman vs. Booth*, and in the most recent case of *In re Neagle*. If any matter can be put at rest by an unvaried course of judicial

decision, and by an almost constant assent of the executive and the legislature, and by an acquiescence and approval of the people, the truth that the national courts are the final judges of the meaning of the Constitution and the extent of the powers conferred upon the United States government and upon the several States, may be considered as established (Story on the Const., par. 373, *et seq.* and 1836; Pomeroy on the Const., p. 99).

Comparatively recent consideration by the executive department of the government of the theory of congressional martial law power affords additional authority against the soundness of the author's views upon this subject; it will therefore be germane to this discussion to state fully what has been done in the premises.

In considering the question whether Congress should be invoked to assume direction and control in the conduct of the military government of Cuba, Mr. Chas. E. Magoon, the law officer of the Insular Bureau, submitted Oct. 19, 1899, to the Secretary of War, the Hon. Elihu Root, an opinion which was approved by the latter and by him caused to be published in Magoon's reports, page 35. This opinion, in part, reads as follows:

Of necessity a military government resorts to martial rule, or martial law, should Congress undertake to legislate for a military government and prescribe rules and regulations of its conduct, Congress would enter upon the dangerous undertaking of giving to martial law the sanction and fixed character of legislative enactment. Under our theory of government martial rule, whether exercised by a military government or the arm of a civil government, arises from necessity, ceases with the necessity and during its continuance its every act must be justified by necessity. Herein is to be found the safeguard against the arbitrary exercise of military power in time of martial rule. The military person exercising power under martial rule is liable to be called before the courts, after martial rule has ceased, and required to justify his action by showing the necessity therefor or respond in damages.

In *Mitchell vs. Harmony*, 13 How. 115, 134, the court said: "It is impossible to define the particular circumstances of danger or necessity in which this power may be lawfully exercised. Every case must depend upon its own circumstances. It is the emergency that gives the right, and the emergency must be shown to exist before the taking (of private property) can be justified."

And if Congress has the authority and shall exercise it and make martial rule the subject of legislation, then the justification of the acts of persons enforcing martial rule becomes a question of law and not of necessity. The legislative act would be a justification which could not be impeached, and the person injured would be without remedy. (Cooley's Const. Law. p. 148; *Griffin vs. Wilcox*, 21, Ind., 370; *Johnson vs. Jones*, 44 Ill., 142; *Hare's Const. Law*, vol. 2, p. 968; *Pomeroy's Const. Law*, sec., 709 *et seqr.*)

If Congress regulates the exercise of that military power over civil rights which we call martial law, the military person who acts within the limits of such legislation could be protected by it, for the act of Congress would be an exercise of the political power,

and the necessity therefor or the expediency thereof could not be inquired into by the courts.

While this opinion does not deal with the question of martial law arising within the United States, yet the whole subject is treated from the standpoint of our theory of government and hence indicative of the opinion of the Secretary of War on the subject of the martial law powers of Congress.

The military student should be taught the law as it is, and the fact should never be lost sight of that the national government is one of delegated and limited powers, that "this is a government of laws and that all authority exercised must show its warrant thereunder."

The text-book in use at the Military Academy, approved by the War Department (Davis's Military Law) maintains that Congress is without power to declare martial law and that a careful examination of the Constitution makes it clear that no such powers are conferred, or intended to be conferred, either directly or indirectly (pages 304 and 305). This is in strict accord with the decision of the Supreme Court in the Milligan case. It requires no argument to show that there should be no variance tolerated between the teachings at the Military Academy and those at the service schools.

To hold that Congress has power to declare martial law is equivalent to declaring that it has power to suspend the guarantees of the Constitution, a theory which would reduce us to the level of the Central and South American republics, and which is wholly contrary to the genius of Anglo-Saxon and American institutions. Magna Charta, the acts of the Long Parliament, the Declaration of Independence and the Constitution of the United States constitute the record of an evolution.

Other points in the author's work relating to martial law might be taken up, but space forbids at this time, and if this paper has been extended beyond the limit justified by the occasion, it is hoped that extenuation therefor may be found in the fact that it tends to put the student upon notice never to accept a text-book writer's statements of principles, said to have been deduced from adjudicated cases, without first examining and analyzing the latter himself so as to assure himself of their applicability to the question involved. A disregard of this wholesome rule in the practice of law has been the cause of many practitioners finding their Waterloo in the courts.

After the completion of this paper the writer was made aware of Judge-Advocate General Lieber's publication in the *North American Review* (1896)—reprinted by the War Department in 1898 (War Department Document No. 79)—entitled "The Justification of Martial Law." In it the non-existence of congressional martial law powers is ably maintained; the writer of the present paper is glad to say that he finds himself in thorough accord with this publication

and commends it to the instructors and students of the service schools as a most important contribution to the study of the subject of martial law, the value of which is enhanced by the fact that it has the sanction of the War Department.

"Union Anti-Militia Edict,"

Colonel Edward Hunter, U. S. A.

"A resolution was adopted yesterday at the annual convention of the Journeymen Bakers' and Confectioners' International Union, now in session at Maennerchor Hall, forbidding its members to join the militia of any State."

"Several other unions have taken similar action, on the ground that if union men joined the militia, they might be called upon to fire on fellow-unionists in strike riots."

The above clipping is from the *New York Times* of October 22, 1905, and is taken to be a correct report of the action of a considerable body of American citizens who appear to hold in contempt the vital truth that it is the duty of a people to support and defend their government, and to have lost sight of the insidious perils that lurk in their resolution which means, if anything at all, that the men who voted it if required to oppose a fellow-unionist, though a public enemy, will not aid in the execution of the laws of their country. Their principle, if successful, would cripple not alone an institution of the State, but would be an attack on the authority of the nation, for its army may be employed to quell a strike and be included in a similar resolution and menace. This resolution is in effect a declaration that military service and membership in the union are incompatible.

Now, as service in the militia is duty to the State, the attitude of the union is that of revolt against the latter, for it disputes its prerogative and weakens its ability to check those who disregard its laws.

A patriotic citizen should hesitate to join an order which visits with expulsion his office of service to the State in which he lives. His honor, safety and interest warn him not to take part with those who would restrain his liberty and intermeddle with an unreasonable demand in what is his affair.

From these reflections upon the character of the resolution of the union I pass to consider how the union's hostility may affect the militia.

If unions in general do not violently oppose the counsels of those of their number who are hostile to the militia, it will not be safe or prudent to incur the risk of receiving into the militia anyone who retains his membership in a union.

Proscriptive statutes will be necessary, and choice demanded between the union and the States, and the question here in the United States will be the union or the militia.

It is a piece of insolence and injustice in the union to bring an American citizen to such a test.

For his encouragement, I quote here from the Constitution of his country: "A well-regulated militia being necessary to the security of a free State the right of the people to keep and bear arms shall not be infringed." (Amendments to the Constitution, Article II.)

I do not believe that all the unions together are strong enough in a free government to successfully infringe this article, if their designs are timely exposed. To man the militia there are in the land a sufficient number of patriotic citizens who do not belong to the unions. From them the militia must recruit if the evil spirit manifested by the bakers and confectioners is the spirit of all the unions.

But in free government, militia, unions and strikers must be under the same obedience to the law, otherwise disorder, confusion, riot, and anarchy will prevail. I hope I have mistaken the echo of an indiscreet lodge for the voice of the union.

"Athletics in Our Army."

Lieut.-Col. Charles J. Crane, Military Secretary.

I have read with great interest and satisfaction the articles of Major Bullard and Capt. H. S. Hawkins, Jr., on this subject.

With Major Bullard I have objected to the lack of military system pursued in imparting instruction in athletics, which instruction should undoubtedly be uniform throughout the service in each branch thereof.

Like Captain Hawkins, I have protested against the character and scope of such instruction, and I have never believed in the field-day and meet, as given us.

I believe in only such instruction in athletics and calisthenics as can be given as a military measure, in a military manner, to all the men of an organization alike.

It is believed that in good weather the drill regulations, the bayonet exercises and the first two sets of Butts' rifle drill should furnish all the necessary means to keep our infantrymen in excellent physical condition.

In inclement weather we should use, in addition to such of these means as may be available, such appliances as we may have in our gymnasiums.

In this connection I will remark that I have seen very few instructors who seemed to follow the correct method of imparting instruction in the setting-up exercises, the bayonet exercises, and the manual of arms.

The tendency is to devote entirely too much time to instruction by the numbers, and to lengthy explanations.

The first begets in the soldier a sullen obstinacy at being subjected to such unnecessary punishment, and the latter betrays in the instructor too great a willingness to work with the tongue and thus avoid the physical exercise which goes with practical illustration.

It is believed that the marvelous runner and jumper is of no special benefit to any military organization.

Expertness in the use of the weapons given the entire organization and the ability of all alike to arrive when needed are far better.

The best thing that I have seen in our present scheme of athletics is that, during the time of instruction made compulsory, we have been allowed to include instruction in bayonet exercise, Butts' rifle drill and tent pitchings, thus insuring some very valuable instruction to entire organizations.

In preference to the field-days we now have, it is considered that military exercises should be substituted, *i. e.*, competitive drills and target-practice, and for the meets the practical solution of simple problems in minor tactics would give more satisfactory results.

It is believed that it would be better to incorporate in our infantry drill regulations all the exercises which would be of value in setting-up a soldier, the bayonet exercises and the first two sets of exercises in Butts' rifle drill.

Having done this we should not require or expect instruction in any other system of calisthenics or athletics, except the use of gymnastic appliances in our gymnasiums during inclement weather. This would insure one uniform system for us all, and it would undoubtedly be followed, and in this manner all uncertainty as to requirements would be eliminated.



Reviews and Exchanges.

Military Studies.*

THIS is a series of interesting essays in which the principles of strategy, as laid down by Napoleon in his commentaries, are illustrated by selected features of some of the famous military operations of history. Some of these essays are familiar to the readers of the JOURNAL, as they were published in its columns; the others will be found equally interesting to the military student.

The author maintains, and we believe rightly, that the fundamental principles of strategy are unchanging. The introduction of modern means of transportation and communication can, therefore, only affect the manner of executing these principles, and not the principles themselves. This being so, a study of the campaigns of the great leaders of the past, and particularly of the great master of strategy must always be a profitable study for the officer who aspires to command an army.

The campaigns described by the author have been selected with discrimination, and are presented in a simple and effective manner which should appeal especially to the young student who is often embarrassed by too great elaboration of unessential details.

In the first study, the object of the author is to show the responsibility of Grouchy for the loss of the battle of Waterloo. This essay presupposes a thorough knowledge of the campaign and battle, such as is given in Ropes' "Campaign of Waterloo"; it is therefore of particular interest only to the student who has made a special study of this campaign.

The second is a study of a series of campaigns illustrating the difficulties and dangers incident to a flank march in the face of an enemy. The campaigns selected are three of the campaigns of Frederick the Great, the master of such maneuvers, and one of modern times. The former are the campaigns of Kollin, Rossbach, and Leuthen, in the first of which Frederick attacked and was defeated, in the second he was attacked and defeated his adversary, and in

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the third he made a successful attack. The fourth campaign is Gravelotte, in which the author describes the flank movement of the German Army.

The third study draws a parallel between Napoleon's operations preceding Jena and Von Moltke's operations immediately after crossing the Moselle.

In the fourth study, the author explains the meanings of the term strategy, and gives the main principles of what may be termed "Napoleonic Strategy." To illustrate the meaning of the principles, he gives a brief description of the campaigns of the "Army of Italy" in 1796 and 1797.

The last is a study of the operations of the opposing armies at the opening of the campaign of 1809, in which the Archduke Charles was the opponent of Napoleon. This study shows the dangers and defects in the original deployment of the French Army, due to the errors of Berthier, and explains the masterly way in which the widely separated wings were concentrated almost in the actual presence of the enemy. Added interest is given to this study by copies of all the important orders issued by Napoleon during the maneuver.

Each campaign in the book has its appropriate map.

G. J. F.

The Provisioning of the Modern Army.*

COLONEL (now Brigadier-General) SHARPE, in his introductory chapter, emphasizes the importance of the provisioning of a modern army in the field as a part of the art of war. [He presents the fact that all of the famous generals of history have recorded in their writings the great importance they attach to the provisioning of an army in the field. He cites that Frederick the Great made the assertion that "the art of conquering is lost without the art of subsistence"; also, that he likewise incorporated this subject in his poem on "The Art of War"; that the Duke of Wellington during the Peninsular War was so much occupied with the question of food and supply that he humorously used to say that he did not know that he was much of a general, but that he prided himself on being a first-class commissariat officer; that, on the Continent of Europe, military writers who have achieved any reputation as such have written *in extenso* on the subject of subsisting armies in the field; and that the importance of the subject among military writers on the Continent has been growing ever since the Napoleonic era. He also quotes from the writings of Jomini, Foy, Saint Cyr, Marmont, Lervai, Roguet, Chassignet, Furse, and Dilke, all of whom attach great importance to the provisioning of an army in the field as a part of the art of war. He further cites as a fact that conquering modern armies have been well-provisioned armies, mentioning as examples our own army in the Civil War, the German Army in the Franco-German War, and the British Army in the Boer War.]

General Sharpe next takes up the subject of the methods of provisioning a modern army in the field, beginning with the plan of operations and of supply. He sets forth the points to be considered

**The Provisioning of the Modern Army in the Field.* By Colonel Henry G. Sharpe, Assistant Commissary-General, United States Army. Kansas City, Mo. Franklin-Hudson Publishing Company. 1905.

in forming a plan of supply when the nation is about to undertake a war. He divides the campaign into two periods, viz., the preparatory or mobilization period and the period of active operations in the field, both of which must be provided for in the plan of supply. He shows that there are two methods of provisioning a modern army in the field—one by consignments by the administration trains from the base depots to the advance depots, and from the latter by the supply trains of the army to the camps of the troops, and the other by utilizing the resources of the country. Both methods are fully described, and the descriptions are illustrated with plates.

The field-bakery systems of the German and French Armies, respectively, are described, and the bake-ovens of the latter are illustrated. Expeditions beyond sea receive a merited share of attention, as does also the subject of the disadvantages in the use of cattle on the hoof as a beef supply for an army in the field.

The work would be a good text-book for student-officers of the Regular Army, and of the organized militia of the several States and Territories who are under instruction in the National military schools and colleges.

J. W. B.

The Third Pennsylvania Cavalry.*

ONE learns much in regard to the gradual growth of the Union cavalry by the careful study of a regimental history. It will be difficult to select from all of our volunteer force a regiment whose services were better adapted to give to the student a more forceful exposition of the evolution of the Union cavalry. Many beginning as untrained mounted men, ignorant of the topography of the country in which they were to operate against rebel riders guided by friendly inhabitants, they became, in less than two years, the acknowledged superiors of the mounted forces opposed to them.

To have such a book at hand at this time, when English officers ask for "biographies and memoirs of General J. E. B. Stuart, Fitzhugh Lee and T. Ashby," since "their lessons should be learned and practiced by cavalry officers of all ranks throughout the world," enables us to represent that it would be better for these officers to study also the lessons taught by the Union generals who overwhelmed these admirable cavalry generals, and to advise that those seeking to profit by the lessons asked for should be furnished through the United States Cavalry Association with such histories of Union cavalry regiments as would make clear to our English friends the cause of the final predominance of the Union cavalry.

Send to the libraries of the English cavalry regiments the "History of the Third Pennsylvania Cavalry." The work is well edited—the arrangement of the various details is such as to secure a continued interest in that regiment, in the Union cavalry and in the campaigns of the Army of the Potomac.

When the chairman of a "Regimental History Committee" is of the acknowledged literary ability of William Brooke Rawle, captain in the Third Pennsylvania Cavalry, when the whole committee is composed of officers and men of the regiment of high

**History of the Third Pennsylvania Cavalry* [Sixtieth Regiment, P. V.] in the *American Civil War, 1861-65*. Compiled by the Regimental History Committee. Philadelphia, 1905.

character and prominent by reason of their gallant conduct on many a battle-field, we are certain to consider the narrative as worthy of implicit belief; and we find it as we expected, free from exaggeration and camp fables. It is history, and it is valuable as history.

The writer, on opening the book, found, and found unexpectedly, that the officers responsible for the training and fighting of this regiment were his classmate and roommate at West Point, Maj.-Gen. D. McM. Gregg, commander of the Second Cavalry Division; Gen. William W. Averell, another classmate at the Military Academy; and Gen. John B. McIntosh, U. S. A. (retired). This latter officer was the writer's classmate at a military school, was after leaving that school a midshipman at Annapolis and was a first lieutenant of United States Cavalry when he succeeded General Averell as colonel of the regiment.

The new regiment soon showed the results of good training under competent commanders. How could these men fail to produce good cavalry from such material? The results of their instruction were a reliable regiment with a proper *esprit de corps*, alert and bold on picket duty, active and enterprising on scouting expeditions, clean and orderly in camp and dashing on the campaign. They grew to consider themselves the equals of any Confederate cavalry and proved themselves in the end to be their superiors.

Therefore this book is to be welcomed, read and made a cavalry text-book for much of the history of that branch of the service in the Army of the Potomac—the army of the Union which, as General Grant wrote, fought from 1862 to 1865 the largest, ablest commanded, and most confident of the Confederate armies under their most famous generals, and won, that army out.

The description of the cavalry fight at Kelly's Ford, March, 1863, is not only of interest as a narrative, but it is an instructive chapter and shows the military student why "the most substantial result of this fight was the feeling of confidence in its own ability which the volunteer cavalry gained." "Kelly's Ford was the making of our cavalry."

It is well worth while to read the preceding two hundred pages of this book to understand why this should be the result. Since the history of the Third Pennsylvania Cavalry gives us all that we may desire to learn of the instruction of a volunteer cavalry regiment, it is a valuable addition to a military library.

Read the book and learn why our cavalry after "Kelly's Ford" were held in "high esteem" by the Confederates.

A true and carefully compiled narrative of Gregg's fight on the right flank of the Army of the Potomac is a distinct challenge of the claim for accuracy which has been the presumed characteristic of McClellan's "Life of Gen. James E. B. Stuart." Here it is shown how continuously Stuart was defeated by Gregg, and how that commander drove Stuart behind the Rummel House and across the York road and left him there to recruit and rest. McClellan, it may be remarked in passing, claims that Stuart drove Gregg back to the infantry supports near Culp's Hill.

And so on to the end of the war. The history of this regiment is part of the history of all of the operations of the Army of the Potomac. It is truthful and instructive. Read it.

ALEX. S. WEBB.

Problems in Maneuver Tactics.*

IN this book the author has given the military service a work which should be of interest and value. Its subject is one which should be of particular interest to the progressive young officer whose energy and ambition seeks for something beyond the daily routine of a subordinate position and who sets himself conscientiously to the task of preparing for whatever the future may have in store.

Its principle value, of course, lies in the fact that it develops in the mind the habit of dealing with comparatively large forces and their proper dispositions under a number of typical conditions, together with the details of marches, supply and terrain. The solutions given are what seem to be the natural ones, but they in no way preclude originality of conception or execution on the part of the reader. Altogether, the book is one that cannot help but benefit the student by familiarizing him to some extent with the responsibility of higher command.

The usefulness of the book is largely detracted from by the character of the accompanying maps which are most confusing on account of the multiplicity of topographical detail and the indistinct lettering. The difficulty with which the operations of the various problems are to be traced on the maps will prove an effectual damper on the enthusiasm of any but the most persistent student, whereas, with good maps, the book would meet with a welcome from every military student.

M. B. S.

Notes on the New Infantry Drill Regulations.†

CAPTAINS STEWART AND DAVIS have conferred upon the infantry arm and the army in general a very great service by their conscientious and intelligent handling of the subject.

The work performed was badly needed, and if their small book is carefully studied it will be found to answer satisfactorily almost every reasonable question as to what should be done in the practical application of what is laid down in our new text-book.

The authors say of their "Notes and Suggestions:" "In them no attempt has been made to interpret any portion of the drill regulations, except by applying the governing rules and principles to the particular case."

In no other manner could a reasonable interpretation of our drill book be effected, and from this application of the governing rules and principles to our drill book the result has been a small handy book of interpretations and suggestions, covering many points which needed a little illumination.

Every infantryman can study these "Notes and Suggestions" with much profit to himself, and a copy of it should at least be in every company orderly room in the infantry arm.

In the next revision of the infantry drill regulations much importance will be given a careful study of the "Notes and Suggestions."

The authors are strict constructionists and properly so in dealing with such a subject. Throughout the book is shown the great necessity for constant and thorough application of the general principles enunciated in paragraphs 1 to 15, I. D. R.

* *Problems in Maneuver Tactics* with Solutions, etc. By T. H. V. Crowe, R. A. Macmillan, 1905

† "Notes and Suggestions of the New Infantry Drill Regulations." By Capt. M. B. Stewart and Capt. M. C. Davis. Kansas City. Franklin-Hudson Co., 1905.

Where reasonable grounds for contradictory interpretations occur, it is possible that the reader may decline to accept the finding of the authors in some instances, but such cases will be rare indeed.

Being on duty at West Point, Captains Stewart and Davis have had unusually good opportunities to satisfy their minds in cases of doubt by witnessing practical application on the drill ground of the suggestions offered, and their work extends through the entire drill regulations.

In this short review of "Notes and Suggestions" it will be endeavored to give something more than a general idea of what they have given us.

In the discussion of paragraph 45, "To mark time," in connection with "The oblique march," par. 109, we are apparently confronted with a contradiction of instructions in the drill regulations.

Under par. 45, while marking time, to resume the full step the commands, "1. 'Full step'; 2, 'March,'" are necessary, apparently without reference to whether we are facing to the original front or to the oblique.

From par. 109, however, the authors seem to infer that, if "mark time" is being executed and we wish to move at the full step to the oblique, the command, "Full step" is not necessary; also that such command would not be necessary if while marking time in the oblique direction we wish to move in full step to the front.

Paragraph 6, General Principles, though not quoted, is apparently in support of this position, while under paragraph 45, it would seem obligatory to insert the command, "Full step" between the commands, "Right oblique" and "March," and between "Forward" and "March," in order to resume the full step from marking time, in the examples taken.

The question will rarely arise, except, perhaps, in an exhibition drill.

The authors make many useful suggestions and explanations regarding the manner of executing the manual of arms.

By the way, one of our military attachés, recently in Manchuria, noticed that in the Japanese Army, "In the manual of arms, there are but three positions of the piece—order, right shoulder and present."

It is understood that the loadings and firings are not part of the manual of arms. Excepting, perhaps "parade rest," we really need only one more position in our manual—the port—for use in the inspection of pieces, and can safely relegate "charge bayonet" and "left shoulder arms" to the place now occupied by the "secure" and "trail."

A careful perusal of the "suggestions" on paragraphs 174 and 181, I. D. R., will remove doubt as to how the company turns on a fixed pivot; also as to how it changes direction in column of squads. As regards the deployment of a company as skirmishers from any formation as described in paragraph 232, I. D. R., I believe that it would be better to first form line, or line of squads as described in other paragraphs, and then deploy as skirmishers.

I am sure that in the case illustrated by the authors in Plate IV, (company in column of squads deploys as skirmishers to the right), it would be better to first form line to the right, then immediately in double time form line of squads on center squad, and immediately thereafter, even before all the squads have arrived on the line, to have them deploy as skirmishers. This would insure keeping the

men under better control and will work out just as quickly and with less confusion, and will not present any better target for the enemy to shoot at.

After giving valuable suggestions as to the loadings and firings earlier in the book, the authors, in discussing par. 236, I. D. R.—volley firing by squads—the company being in line of squads, state in effect that the captain would first give all his commands, all of them being repeated by the platoon and section commanders, and then the squad leaders would begin giving *their* commands for firing, and at the first command for firing given by any squad leader the men of his squad would come to the position of load.

This is apparently deducted from the expression in par. 236, “Each subdivision executes the firing as if alone” and from par. 265—School of the Battalion—where the captains give no commands for the volley firing by their companies till after the major has finished giving his commands.

There is reasonable room for doubt in this case, and the writer suggests that paragraph 135 may be intended to apply to the entire company and not merely to the squad, and that the object of having platoon and section commanders repeat the captain’s commands is to have them see that the squad leaders also repeat them immediately and properly.

It is believed that volley firing by squads has practically very little importance, except where one or more squads are specially selected for the purpose without the giving of drill commands by the captain.

The authors remind us that “In rapid fire the bayonets are fixed without command.”

According to our drill regulations the rapid fire is taken up at about 200 yards, that is, we stop firing long enough at that range to fix bayonets before taking up the rapid fire preparatory to the charge.

It is safe to say that we will do no such thing. If bayonets are fixed at all it will be done when we are some 500 yards from the enemy, and by command passed along the line of skirmishers. The Japanese drill regulations have fixed upon that range for fixing bayonets in advancing to the attack.

Again we might accept a pointer from the victors in Manchuria.

The “Suggestions” contain the sensible provision that in the advance by rushes the platoon firing to cover the advance of the other would use the “Fire at will” until the advanced platoon had halted and taken up the firing.

Throughout the book valuable suggestions are offered. But in the following instances it is again believed that there is reasonable ground to question the correctness of the “Suggestions” offered as to the meaning of the text.

Regarding paragraph 449, I. D. R. “When the commanding officer of the troops has taken his post on the right of the reviewing officer, if dismounted, he takes the order saber, and renders the prescribed salute to the colors and to the reviewing officer from that position.”

Again, paragraph 488, I. D. R., the authors state: “When the major takes his post, if dismounted, he takes the order saber remaining in this position until inspected, when he takes the carry before joining the inspector.”

Paragraph 528, I. D. R., is quoted by the authors as giving the

general rule as to how the saber should be carried, *i.e.*: "The saber is held at the carry while giving commands, marching at attention or changing position in quick time."

It is believed that this rule is, in the cases quoted, modified by the following quotations from the drill regulations.

Paragraph 171, "A non-commissioned officer as guide, or in command of a company, subdivision or detachment, carries his piece as the men do."

Paragraph 487, "Should the inspector be other than the captain the latter opens ranks, and when the inspector approaches, brings the company to attention, faces to the front and salutes in person. The salute acknowledged, the captain *carries saber*, faces about, commands: 1. *Inspection*; 2. *Arms*, and again faces to the front."

The reviewing officer and his staff are standing, it is true, and with sabers undrawn, but the commanding officer's troops are marching, and it is believed that he should have his saber at a carry.

It is also believed that paragraph 487, in its full meaning, broadens out in principle and applies to every officer who has saber drawn and is about to be inspected, and that therefore, the major should carry saber on the approach of the inspector, and remain at carry while being inspected. Otherwise, we would see him inspected with saber at the order while each company officer in his command stands at carry saber while being inspected.

On account of their undeniable value the "Notes and Suggestions" should be carefully consulted by every student of our drill regulations for the infantry, and taken as a whole, may safely be followed in doubtful cases.

Apparently the plates on sheet between pages 58 and 59 slipped in through error of the printer, having no connection with the text.

C. J. CRANE,
Lt. Col. Mil. Sec.

An English History of the Civil War.*

THE book before us is certainly the most compact and carefully prepared account of the great American conflict that has been published. With the single exception of the Count de Paris's admirable, but unfinished, History of our Civil War, which, curiously enough, does not appear among the numerous authorities quoted in the work under notice, it is also the most impartial. As is inevitable, American writers are naturally influenced by the partiality and prejudice of their Northern or Southern environment, while almost all histories of English origin appear to be unduly partial to the Confederates. As Wilkinson states in his excellent introduction: "It is part of the tragic humor of fate that sometimes the noblest characters are the champions of lost causes. The brilliant personalities of men like Lee and Stonewall Jackson have, for too many English readers of American history, been the magnets which have biased the judgment and hidden the truth. The great figure of the story is that of President Lincoln, whose honest purpose of heart enabled him not only to grasp the true nature of what was taking place, but to bring the cause of right to its triumphant conclusion. Lincoln was the statesman who conducted the war,

and beside him even the figures of such great generals as Grant and Sherman sink into comparative insignificance."

The authors of this octavo almost attain to the cold neutrality of impartial judges, which is generally accepted as the characteristic of the seven volumes compiled by General McClellan's French aide-de-camp. This, as the latter frequently assured the present writer, was the aim of the royal writer—to be absolutely impartial in his account of our Civil War. On almost every page of this new English work will be found useful foot-notes giving the sources of important data gleaned from more than two hundred volumes, including all the most important books bearing on the great contest that have appeared up to the present year. The value of the work is enhanced by an exhaustive index, which exhibits the partiality that seems inevitable in an English book on the American war. While Lee has twenty-eight lines, the references to Grant occupy but sixteen, and Longstreet is given more space than Sherman, Sheridan, Thomas or Meade. Mention should not be omitted of the twenty-four excellent maps and plans of important battle-fields.

Mr. Wilkinson concludes his judicious introduction with these words: "It is because I am convinced that the true nature of war and its relation to national life can be learned from a study of the American Civil War as a whole, that I venture to commend to English readers the work of Mr. Wood and Major Edmonds. The technical aspect of the war has been sufficiently explored by a great number of professional writers of several nationalities. The writers of this volume, therefore, have the benefit of abundant preparatory labors. They may be trusted for the accuracy and completeness of their story, though the judgment of individual men and special events is, in every case, their own."

To draw the moral and learn the lesson is the reader's business.

J. G. W.

New York in War of '98.†

IN the annual report of the State historian of New York, printed as Assembly Document No. 68, April, 1903, is to be found the result of the effort of the State historian to have the experiences of the State organizations in going to war chronicled by some one of the organization "preferably a non-combatant." The result here recorded relates to only a part of the State's contribution to the volunteer force of 1898, viz.: the First, Second, Third, Sixty-ninth and Seventy-first Regiments. What is written of the first three regiments is a rather colorless recital of officers, itinerary and casualties.

The account of the Sixty-ninth, disregarding the "non-combatant" suggestion, has the distinct trace and flavor of the style of its patriotic colonel, who signs the story of the regiment's movements, history and fortunes. The colonel generously complied with the semiofficial request, and makes an interesting chapter.

* *A History of the Civil War in the United States 1861-5.* By W. Birdbeck Wood, M. A. Lieutenant (Cadet Corps) Second Volunteer Battalion, Devon Regiment and Major J. E. Edmonds, R. E. With an introduction by Spenser Wilkinson. (Thirteen maps and eleven plans.) pp. 549 New York, G. P. Putnam's, 1905.

† *New York and the War with Spain.* N. Y. State publication, Albany, N. Y.

The history of the experiences of the Seventy-first was prepared by its chaplain, and is the most complete of all the accounts. The story is carefully told, and the writer declares, on his own word, that General Kent directed Colonel Downs to take his regiment down the trail "and follow it to the ford of the *stream and there rest.*" Colonel Downs, in not crossing the ford, he says, absolutely obeyed orders, for a disobedience of which, if a retreat had occurred, and he had been absent from the point indicated, he would have been court-martialed. The life in the trenches, on the steamers, at Montauk, and back to the armory, is told loyally and entertainingly.

These histories do not supplant the official reports of the officers of the organizations to superior authority, but refer to them, and are therefore supplemental. There are over one hundred pages of index to these accounts.

The last two hundred pages of this document are entitled, "War of the Rebellion Series," and comprise "My Memories of the Military History of the State of New York during the War for the Union, 1861-1865, by Colonel Silas W. Burt." It is called Bulletin No. 1. Colonel Burt was long known in New York politics as a veritable war horse. He was in New York during the Civil War, and relates the activities of the war governor of New York, E. D. Morgan, in supplying the great army which went to the front from that State, aided greatly by his patriotic zeal.

C. E. L.

The Journal of the Military Service Institution of the United States.

THERE is generally so much of interest in this magazine that our chief regret is that it only puts in an appearance every two months. In the present number, November-December, 1905, we have "Athletics in the Army," "Field Artillery Fire," "Training of Volunteer Troops," "Individual Instruction of the Shot," "The Railway in War Time," "Field Batteries in Militia," "The Battle of Shakhe River," "Gibraltar, the Key to the Orient," "Field and Siege Operations in the Far East," and a host of miscellaneous matter. Nearly every branch of the Service is catered for, and the contributions are clearly the work of experts in their particular branches. A perusal of even a portion of the contents will prove an education to any military man having his profession at heart.—(*The London United Service Gazette.*)

Our Exchanges.

Journal of the Association of Military Surgeons—November and December.

Journal of the Royal Artillery—October and November.

Journal of the Royal United Service Institution.—October and November.

Journal of the United States Artillery.—July-August.

Journal of the United Service Institution of India.—October.

Revue d' Artillerie.—September and October.

Revue Militaire.—October and November.

Revue de l'Armée Belge.—July-August.

Royal Engineers Journal.—October and November.

United Service Magazine (London).—November and December.

United Service (New York).—December.

Army and Navy Life, to date.

Boletín del Centro Naval: regular issues, to date.

Bulletin of the American Geographical Society: regular issues, to date.

Current Literature: regular issues, to date.

Journal of the Western Society of Engineers: regular issues, to date.

La Belgique Militaire: regular issues, to date.

Patria: Paris, France, to date.

Professional Papers of the Corps of Royal Engineers, 1904.

Political Science Quarterly: regular issues, to date.

Proceedings of the American Society of Civil Engineers: to date.

Review of Reviews: regular issues, to date.

Revue du Cercle Militaire: regular issues, to date.

Revista di Artiglieria e Genio: regular issues, to date.

The Scientific American: regular issues, to date.

The Dial: regular issues, to date.

The Popular Science Monthly: regular issues, to date.

The Seventh Regiment Gazette: regular issues, to date.

The Medical Record: regular issues, to date.

The Century Magazine: regular issues, to date.

The Army and Navy Journal: regular issues, to date.

The Magazine of History: to date.

United Service Gazette: (London) regular issues, to date.

Received for the Library and for Review.

A New Historical and Explanatory Dictionary, including the Warrior's Gazetteer of Places, remarkable for Sieges of Battle, by Thomas Simes, Esq. (Philadelphia.) 1776.

The Army Horseshoer. A Manual for Students of the Training School for Farriers and Horseshoers, by the Training School Instructors. (Fort Riley, Kan.) 1905.

Annual Report of the Commandant, School of Application for Cavalry and Field-Artillery for the year ending August 31, 1905. (Fort Riley, Kan.) 1905.

Guide to Military History for Military Examinations. Part I. Peninsular War, 1808-10. By Capt. G. P. A. Phillips (London.) Gale & Polden, Ltd., 1905.

Principles et Procédés relatifs au Dressage Méthodique du Cheval. Extrait de la Revue d'Artillerie, Février, 1904.

Valley Forge: A Chronicle of American Heroism. By Frank H. Taylor. (Philadelphia.) James W. Nagle, 1905.

The Delineator. (New York.) The Butterick Publishing Co. December, 1905.

Annual Report of the Board of Regents of the Smithsonian Institution for the year ending June 30, 1904. (Washington.) Government Printing Office, 1905.

Hints on Stable Management. By Brig.-General M. F. Remington, C. B. Second Edition. (London.) Gale & Polden, Ltd. 1905.

On Outpost Duty: What to Do and How to Do It. (London.) Gale and Polden, Ltd. 1905.

A History of the Civil War in the United States, 1861-5. By W. Birkbeck Wood, M. A., Lieutenant (Cadet Corps), 2d Vol. Bat., Devon Regiment, and Major J. E. Edmonds, R. E. (New York.) G. P. Putnam's Sons. 1905.

A Soldier's Trial. By General Charles King. (New York.) The Hobart Company. 1905.

The Scientific American Boy, or The Camp at Willow Clump Island. By A. Russell Bond. (New York.) Munn & Co. 1906.

List of Benjamin Franklin Papers in the Library of Congress. Compiled under the Direction of Worthington Chauncey Ford, Chief Division of Manuscripts. (Washington.) Government Printing Office. 1905.

Studies in Moro History. By Najeeb M. Saleeby. Ethnological Survey Publication. Vol. IV, Part I. Manila Bureau of Public Printing. 1905.

Notes and Suggestions of the New Infantry Drill Regulations. By Capt. M. B. Stewart, and Capt. M. C. Davis. Kansas City. Franklin Hudson Pub. Co. 1905.

Problems in Maneuver with Solutions for Officers of All Arms. By Major J. H. V. Crowe, R. A. New York. Macmillan Co. 1905.

ROSTER AND HONOR ROLLS OF THE AMERICAN TROOPS IN THE SANTIAGO CAMPAIGN, 1898.

ON February 1, 1904, the transport *Sumner* arrived at Santiago de Cuba to bring away the last of the American troops in garrison at Moro Castle, and then sailed to Havana, where after formal ceremony of lowering the American flag and raising in its place the flag of the Republic of Cuba, the last garrison of American troops in the Island of Cuba was taken on board the transport *Sumner*, which sailed at once for the United States. While the troops were being transferred to the *Sumner* at Santiago, a number of American officers visited the battle-fields of the Santiago campaign, and noticed with sorrow that there was practically nothing to mark where the American soldiers fought and fell in the cause of humanity.

On reaching Havana, the matter was brought to the attention of the American minister, and a formal letter was addressed to him by Colonel Webb C. Hayes, late Major First Ohio Cavalry in the Santiago campaign, requesting the Cuban Government to donate four bronze Spanish cannon and sixteen bronze mortars to the Society of the Army of Santiago de Cuba, for the purpose of marking the four engagements of the Santiago campaign.

Before the transport *Sumner* reached the United States, war between Russia and Japan had begun, and Colonel Hayes proceeded at once to Korea and Manchuria, the scene of hostilities as an observer, and incidentally visited the battlefield, at Tientsin in the Boxer War of 1900 and Peking where he had served on General Chaffee's staff in the China Relief Expedition. Here again the American soldier had been neglected: while monuments and tablets to the British, Japanese and Germans, were found on every hand. On returning to America, the matter was brought to the attention of Lieutenant-General Chaffee and Major General Bates, the Presidents, respectively, of the Military Order of the Dragon and the Society of the Army of Santiago de Cuba. The American Congress made an appropriation of \$9,500 "to mark the places where the American soldiers fell and were temporarily interred in Cuba and China," and Consul General Steinhart, at Havana, secured the Spanish cannon and mortars and everything desired from the Republic of Cuba. Subsequently, Secretary Taft issued the following order:

April 12, 1905.

Memorandum to Chief of Staff:

On February 2, 1905, Major-General John C. Bates, U. S. Army, President of the Society of the Army of Santiago de Cuba, appointed a committee composed of Lieutenant-General S. B. M. Young, U. S. A., Retired; Colonel A. L. Wagner, U. S. A., and Lieutenant-Colonel W. C. Hayes, U. S. V., to arrange for marking such points of interest in the vicinity of Santiago de Cuba as the committee might deem historically important.

On March 6, 1905, Lieutenant-General A. R. Chaffee, U. S. Army, President of the Military Order of the Dragon, appointed a committee composed of Captain F. De W. Ramsey, U. S. A., Captain J. B. M. Taylor, U. S. A., Captain Grote Hutcheson, U. S. A., and Lieutenant-Colonel W. C. Hayes, U. S. V., to arrange for marking such points of interest in the vicinity of

Tientsin and Peking, China, as the committee might deem historically important.

Under the Act of Congress, approved March 3, 1905, the sum of \$9,500 was appropriated for marking the places where American soldiers fell and were temporarily interred in Cuba and China. It is my desire that the recommendation of the majority of the members of each of the above committees as to the marking of the places mentioned in this Act be carried out, and I desire that you receive their report and transmit the same to the Quartermaster-General with directions to have the same carried out if the expense thereof will not exceed the above amount.

No mileage or traveling expenses or any other personal expenses incurred by the members of the committees will be charged to this appropriation or any other Government appropriation.

(Signed) WM. H. TAFT,

Secretary of War.

We are able to print the inscriptions which have been prepared by the Santiago Battle-field Commission for the bronze tablets, which are to be inserted in the pedestals of the battle monuments, to be erected on the ruins of the block house at El Caney, on San Juan de Mayares Hill and on Fort San Juan. The plans of the commission call for the erection of three battle monuments to mark the three principal points mentioned above of the battles of July 1, 1898, at Santiago de Cuba. These battle monuments are simple in design, consisting of a large bronze Spanish cannon resting on a Spanish gun carriage, erected on a cement pedestal in the bases of which will be inserted two bronze tablets a roster tablet, and an honor tablet.

The roster tablet will contain the names of the commanding officers of the division, the brigades and the regiments engaged, and the honor tablet will contain the names of the officers and men who were killed or died of wounds, and the names of the officers who were wounded and the number of men of each regiment who were wounded.

The bronze tablets for the three battle monuments are in process of manufacture by the Ordnance Department, at the Rock Island Arsenal, and it is the intention of the commission to have a formal dedication of the battle monuments on the ruins of the block house at El Caney, some time in January if the tablets are ready, and if Lieutenant-General Chaffee and Major-General Bates, who commanded brigades in the battle at El Caney can attend the dedication.

The further plans of the commission call for the erection of eight bronze tablets, three feet by five feet, to be erected around the Surrender Tree, which is to be enclosed by an octagonal fence, made of rifle barrels and bayonets some seven and one-half feet in height. The government of Cuba has been requested to construct a twenty-foot drive-way along the line of the trenches from the left of the American line at the Laguna road, thence along the line of trenches to the road leading to El Caney, in which event the commission proposes to erect thirty-three regimental markers, twelve brigade markers and four division markers along the driveway, showing the positions of the regiments and brigades during the siege.

CAVALRY DIVISION IN THE ASSAULT ON SAN JUAN DE MAYARES HILL AND SAN JUAN RIDGE.

JULY FIRST, EIGHTEEN HUNDRED AND NINETY-EIGHT

CAVALRY DIVISION FIFTH ARMY CORPS.

MAJOR-GENERAL JOSEPH WHEELER, U. S. V.

[BRIGADIER-GENERAL S. S. SUMNER, U. S. V., COL. SIXTH CAVALRY.
TEMPORARILY COMMANDING DIVISION.

Adjutant-General Lt.-Col. J. H. DORST, Capt. 4th Cav.

Insp.-Gen. Lt.-Col. E. A. GARLINGTON, U.S.A.
Ch. Q. M. Capt. P. W. WEST, 8th Cav.
Ch. Comsy. Capt. J. T. DICKMAN, 8th Cav.

Ch. Surgeon Lt.-Col. V. HAVARD, Maj. U.S.A.
Ch. Eng. Off. Maj. W. D. BEACH, Capt. 3rd Cav.
Ch. Ord. Off. Capt. W. A. CHANLER, U. S. V.

FIRST BRIGADE.

Brig.-Gen. S. S. SUMNER, Col. 6th Cav. Com-
manding Div.
Lieut.-Col. HENRY CARROLL, 6th Cav.,
wounded.
Adj.-Gen. Capt. R. L. HOWZE, Lt. 6th Cav.
Brig. Q. M. Lt. J. A. HARMAN, 6th Cav.
Brig. Comsy. Capt. R. H. BECKHAM, U. S. V.
Brig. Surg. Maj. GEO. MCCREERY, U. S. V.

SECOND BRIGADE.

Brig.-Gen. S. B. M. Young, Col. 3d. Cavalry,
sick.
Colonel LEONARD WOOD, 1st U. S. Vol. Cav.
Adj.-Gen. Capt. A. L. MILLS, Lt. 1st Cav.,
wounded.
Maj. W. C. HAYES, 1st Ohio Cav., wounded.
Brig. Q. M. Lt. W. E. SHIPP, 10th Cav., killed.
Brig. Comsy. Capt. M. J. HENRY, U. S. V.,
wounded.
Attached Capt. R. SEWELL, Lt. 7th Cav.

THIRD U. S. CAVALRY.

Major H. W. WESSELS, wounded.
Major HENRY JACKSON.

FIRST U. S. CAVALRY.

Lieut.-Col. C. D. VIELE.

SIXTH U. S. CAVALRY.

Lieut.-Col. HENRY CARROLL, Comdg. Brig.
Major T. C. LEBOW.

TENTH U. S. CAVALRY.

Lieut.-Col. T. A. BALDWIN.

NINTH U. S. CAVALRY.

Lieut.-Col. J. M. HAMILTON, killed.
Captain E. D. DIMMICK.

FIRST U. S. VOL. CAVALRY.

Colonel LEONARD WOOD, Comdg. Brig.
Lieut.-Col. THEODORE ROOSEVELT.

CAVALRY DIVISION FIFTH ARMY CORPS.

CAMPAIGN OF SANTIAGO DE CUBA, 1898.

KILLED AND WOUNDED

FIRST BRIGADE, CAVALRY DIVISION.

THIRD UNITED STATES CAVALRY.

Killed—Sergeant Patrick Ward, Trumpeter Thomas Pool, Privates Dan D. Cooley, Wesley C. Rollo, James. G. Scanlon.

Wounded—Major Henry W. Wessells, Jr., Captains George A. Dodd, George K. Hunter, First Lieuts. Arthur Thayer, Alfred C. Merillat, Oren B. Meyer, and four enlisted men.

SIXTH UNITED STATES CAVALRY.

Killed—Saddler James L. Langley, Wagoner Millard F. Perkins, Trumpeter Charles Scott, Privates Edward Belger, James M. Hammond, George E. Lind, Charles H. Malloy, James E. McCartney, Edward Ross.

Wounded—Lieut.-Colonel Henry Carroll, Captains John B. Kerr, Augustus P. Blocksom, Second Lieut. Walter C. Short, and forty-six enlisted men.

NINTH UNITED STATES CAVALRY.

Killed—Lieut.-Colonel John M. Hamilton, Acting Asst. Surgeon Harry W. Danforth, Trumpeter Lewis Fort, Privates James Johnson, Noah Prince.

Wounded—Captain Charles W. Taylor, First Lieut. Winthrop S. Wood, and seventeen enlisted men.

SECOND BRIGADE, CAVALRY DIVISION.

BRIGADE STAFF.

Killed—First Lieut. William E. Shipp, 10th Cavalry quartermaster.

Wounded—Captain Albert L. Mills, First Lieut. 1st Cav. Adj.-General, Major Webb C. Hayes, 1st Ohio Cavalry, Acting Adj.-General, Captain Morton J. Henry, U. S. Vols. Commissary.

FIRST UNITED STATES CAVALRY.

Killed—Major Albert G. Forse, Sergeants Henry Anderson, Michael McGartlen, William Smith, Corporals Frederick Landmark, Alexander Llenoc, William A. Pixton, Blacksmith August Griepenstroh, Privates Jack Berlin, Emil Bjork, Robert L. Conrad, Edward Delbridge, Peter H. Dix, Edward Frolkey, Adam Gund, Charles D. Jacobs, Gustav A. Kolbe, Otto Krupp, Harold W. Ladley, Roland L. Linder, Melvin Ray, Charles F. Schwartz, Jesse K. Stork.

Wounded—Major James M. Bell, Captain Thomas T. Knox, First Lieuts, Albert L. Mills, George L. Byram, and forty-nine enlisted men.

TENTH UNITED STATES CAVALRY.

Killed—First Lieuts. William E. Shipp, William H. Smith, Corporals William F. Johnson, William L. White, Privates John Brooks, John H. Dodson William H. Slaughter, John A. Smoot, George Stovall.

Wounded—Major Theodore J. Wint, Captain John Bigelow, Jr., First Lieuts. Malvern Hill Barnum, Edward D. Anderson, Richard L. Livermore, Second Lieuts. Harry O. Williard, Henry C. Whitehead, Thomas A. Roberts, Frank R. McCoy, and seventy-four enlisted men.

FIRST UNITED STATES VOLUNTEER CAVALRY.

Killed—Captains Allyn K. Capron (2nd Lt. 7th Cav.), William O'Neill, Sergeants Hamilton Fish, Henry Haywood, Marcus D. Russell, Corporals Tilden W. Dawson, Geo. H. Doherty, Joel R. Hall, Privates James Boyle, Fred. E. Champlin, Roy V. Cashion, William T. Erwin, Silas R. Enyart, Henry C. Green, Henry J. Haefner, Milo A. Hendricks, Edward Liggett, David Logue, Theodore W. Miller, Fred P. Meyers, Oliver B. Norton, Lewis Reynolds, John F. Robison, William T. Santo, Race H. Smith, John W. Swetnam.

Wounded—Major Alexander O. Brodie, Captain Jas. H. McClintock, Richard C. Day, First Lieuts. Joseph A. Carr, John R. Thomas, Jr., Second Lieuts. Horace K. Devereaux, David J. Leahy, a cadet, U. S. M. A., Ernest E. Haskell, and one hundred and two enlisted men.

FIRST DIVISION IN THE ASSAULT ON FORT SAN JUAN AND SAN JUAN RIDGE.

JULY FIRST, EIGHTEEN HUNDRED AND NINETY-EIGHT.

FIRST DIVISION FIFTH ARMY CORPS.

BRIG. GEN. J. FORD KENT, U. S. V. (COL. 24TH INF.)

FIRST BRIGADE

Brig.-Gen. H. S. HAWKINS, U. S. V.,
Col. 20th Inf.

SIXTH U. S. INFANTRY
Lieut.-Col. H. C. EGBERT, wounded.
Major C. W. MINOR.

SIXTEENTH U. S. INFANTRY
Colonel H. A. THEAKER.

SEVENTY-FIRST N. Y. INFANTRY.
Colonel W. A. DOWNS.

SECOND BRIGADE.

Col. E. P. PEARSON, 10th Inf.

SECOND U. S. INFANTRY.
Lieut.-Col. W. M. WHERRY.

TENTH U. S. INFANTRY.
Lieut.-Col. E. R. KELLOGG.

TWENTY-FIRST U. S. INFANTRY.
Lieut.-Col. CHAMBERS McKIBBEN.

Battery A, Second U. S. Artillery, Capt. G. S. GRIMES.

Battery F, Second U. S. Artillery, Capt. C. D. PARKHURST.

Troop C, Second U. S. Cavalry, Lieutenant W. F. CLARK.

THIRD BRIGADE.

Col. C. A. WIKOFF, 22d Inf., killed.
Lieut.-Col. W. S. WORTH, 13th Inf., wounded.
Lieut.-Col. E. H. LISCUM, 24th Inf., wounded.
Lieut.-Col. E. P. EWERS, 9th Inf.

NINTH U. S. INFANTRY.
Lieut.-Col. E. P. EWERS, Comdg. Brig.
Major W. H. BOYLE.

THIRTEENTH U. S. INFANTRY.
Lieut.-Col. W. S. WORTH, Comdg. Brig.
Major P. H. ELLIS.

TWENTY-FOURTH INFANTRY.
Lieut.-Col. E. H. LISCUM, Comdg. Brig.
Major A. C. MARKLEY.

Battery K, First U. S. Artillery, Capt. C. L. BEST.

Troop A, Second U. S. Cavalry, Capt. T. J. LEWIS.

FIRST DIVISION FIFTH ARMY CORPS.

CAMPAIGN OF SANTIAGO DE CUBA 1898.

KILLED AND WOUNDED.

FIRST BRIGADE, FIRST DIVISION.

Wounded—Brig. General Hamilton S. Hawkins, Colonel 20th Infantry.

Killed—Second Lieuts. Dennis M. Michie, 17th Infantry, A. D. C.;
First Lieut. Jules G. Ord, 6th Infantry Commissary.

SIXTH UNITED STATES INFANTRY.

Killed—Captain Alexander M. Wetherill, First Lieut. Jules G. Ord, Second Lieuts. Reuben S. Turman, Edmund N. Benchley, Sergeant Patrick Leonard, Corporals John Doran, John McConville, Edmond R. Wallace, Musician John F. W. Henderson, Privates Oaty L. Beeler, Theodore Brown, David Butler, Daniel Dempsey, Wm. V. Egan, Frank Graffin, Robert F. Hughey, John Maier, Clare Miller, James M. Mullen, Edward Neal, John E. Nelson, Alexander Werner.

Wounded—Lieut.-Colonel Harry C. Egbert, Captains Geo. B. Walker, Zerah W. Torrey, Second Lieuts. Wm. H. Simons, Clarence N. Purdy, Louis H. Gross, John Robertson, and ninety-nine enlisted men.

SIXTEENTH UNITED STATES INFANTRY.

Killed—Captain Theophilus W. Morrison, First Sergeant Michael O'Brien, Sergeant Joseph M. Haag, Corporals Harvey M. Hone, Robert Kane, Geo. J. Reardon, Musician Leon G. Andress, Privates Robert Allen, Henry Bailey, Robert Colling, Axel S. Christiansen, Fred Kauffin, Richard T. Lewis, Alton I. Post, Harvey R. Ross, Charles W. Stapleford, William Stone, Roy E. Ward.

Wounded—Captains Thomas C. Woodbury, William C. McFarland, William Lassiter, First Lieut. Samuel W. Dunning, Second Lieuts. Lewis S. Sorley, Robert E. L. Spence and one hundred and five enlisted men.

SEVENTY-FIRST NEW YORK INFANTRY.

Killed—Corporals George L. Immer, Henry J. Scheid, Privates Frank W. Booth, John Booth, Clifton B. Brown, Lewis W. Carlisle, Charles P. F. Cushing, Michael Daly, Joseph S. Decker, Joseph Dunwoody, Charles D. Holland, William Preger, Reuben Ross, Sidney A. Scofield, Louis B. Skinner.

Wounded—Second Lieut. William E. Trull, Jr., and sixty-nine enlisted men.

SECOND BRIGADE, FIRST DIVISION.

SECOND UNITED STATES INFANTRY.

Killed—Captain Charles W. Rowell, First Sergeant Charles Mayer, Sergeant Mitchell E. Hayes, Corporal Severt Olsen, Artificer Peter Nelson, Privates Wm. D. Dempster, John A. Lytton, Thomas Ryan, August Stahlman, James M. Slusser, John L. Willis, Joseph Zitek.

Wounded—Major Jacob H. Smith, Captains Wm. J. Turner, Charles W. Rowell, Second Lieuts. Wm. J. Lutz, Briant H. Wells, and forty-eight enlisted men.

TENTH UNITED STATES INFANTRY.

Killed—Captain John Drum, Corporals John W. McCartney, Dennis Warfle, Privates Walter Austin, Walter C. Cox, Lee K. Godfrey, Henry E. Lyman, Felix McClaire, David Thomson, Dock M. Yoakley.

Wounded—Majors Richard I. Eskridge, Sumner H. Lincoln, Captain Robert C. Van Vliet, First Lieut. Carl Koops, Second Lieut. Mathew E. Saville, and thirty-one enlisted men.

TWENTY-FIRST UNITED STATES INFANTRY.

Killed—Privates Benjamin F. Boling, Wm. Davis, Otto Derr, Robert McClatchey, Joseph May, Joseph Murphy, Michael O'Mealey, Edward Ploude, Albert Tomkinson, Fred Weisheit.

Wounded—Second Lieut. Francis K. Meade, and twenty-seven enlisted men.

THIRD BRIGADE FIRST DIVISION.

Killed—Colonel Charles A. Wikoff, 22d Infantry.

Wounded—Lieut.-Colonel William S. Worth, 13th Infantry, Lieut.-Colonel Emerson H. Liscum, 24th Infantry.

NINTH UNITED STATES INFANTRY.

Killed—Second Lieut. Louis H. Lewis, Corporal John Joyce, Privates Thomas Longway, Philip H. Schermerhorn, David H. Smith, De Forest A. Spicer, Wm. Walker.

Wounded—Twenty-five enlisted men.

THIRTEENTH UNITED STATES INFANTRY.

Killed—Captains James Fornance, Second Lieut. Wm. A. Sater, Corporals Bartholomew Callery, Charles Derr, Paul Rutledge, Artificer Nelson C. Arms, Wagoner Elmer G. Wood, Privates George T. Burgess, Charles Couselyea, John Doran, Richard H. Dowling, Martin Griffen, Julius L. Hanson, John Holleran, John J. Kiernan, Daniel Loneyan, Wm. J. McIlvaine, Thos. F. Massey, Clem Redinger, Frederick Rote, Wm. O. Showalter, Harry C. Strickler, Julius B. Weil, Elwyn V. Woods, Thomas Wright.

Wounded—Lieut.-Colonel William S. Worth, Comdg. Brigade; Major Philip H. Ellis, Captains John B. Guthrie, Harry G. Cavanaugh, First Lieut. Albert B. Scott, and seventy-nine enlisted men.

TWENTY-FOURTH UNITED STATES INFANTRY.

Killed—Second Lieuts. John A. Gurney, Joseph N. Augustin, Jr., Sergeants Frank Banks, John P. Williams, Corporals John R. Miller, Jesse S. Moss, John Robinson, Privates Richard H. Bissell, Geo. A. Brown, Gus Hudson, Thomas Ledell, Thomas Swift, Aleck Tuttle.

Wounded—Lieut.-Colonel Emerson H. Liscum, Comdg. Brigade; Captains John J. Brereton, Arthur C. Ducat, First Lieuts. James E. Brett, Henry G. Lyon, Second Lieut. Albert Laws, and seventy-one enlisted men.

BATTERY K FIRST U. S. ARTILLERY.

Killed—Sergeant James F. McCarthy.

BATTERY A SECOND U. S. ARTILLERY.

Killed—Artificer Victor Helm, Private Asa B. Underwood.

Wounded—Eight enlisted men.

BATTERY F SECOND U. S. ARTILLERY.

Killed—Private Edgar R. Wass.

Wounded—Captain Charles D. Parkhurst, and one enlisted man.

SECOND UNITED STATES CAVALRY.

Wounded—One enlisted man.

HOSPITAL CORPS.

Killed—James Arthur.

Wounded—Three enlisted men.

ENGINEER BATTALION.

Wounded—One enlisted man.

SIGNAL CORPS.

Wounded—One enlisted man.

DUFFIELD'S BRIGADE.

THIRTY-THIRD MICHIGAN INFANTRY.

Killed—Privates John H. Franklin, Otis M. Marr, Ferdinand G. Sebright.

Wounded—Twelve enlisted men.

THIRTY-FOURTH MICHIGAN INFANTRY.

Wounded—Five enlisted men.

NINTH MASSACHUSETTS INFANTRY.

Wounded—Three enlisted men.

AMERICAN TROOPS IN THE BATTLE AT EL CANEY, CUBA.

JULY FIRST, EIGHTEEN HUNDRED AND NINETY-EIGHT.

SECOND DIVISION FIFTH ARMY CORPS.

BRIG. GEN. H. W. LAWTON, U. S. V., LIEUT.-COLONEL, U. S. A.

FIRST BRIGADE.

Brig.-Gen. WM. LUDLOW, U. S. V., Lieut.-
Col. U. S. A.

EIGHTH U. S. INFANTRY.

Major C. H. CONRAD.

TWENTY-SECOND U. S. INFANTRY.

Lieut.-Col. J. H. PATTERSON, wounded.
Major W. M. VAN HORNE.

SECOND MASSACHUSETTS INFANTRY.

Colonel E. P. CLARK.

SECOND BRIGADE.

Colonel EVAN MILES, 1st Inf.

FIRST U. S. INFANTRY.

Lieut.-Col. W. H. BISBEE,

FOURTH U. S. INFANTRY.

Lieut.-Col. A. H. BAINBRIDGE.

TWENTY-FIFTH U. S. INFANTRY.

Lieut.-Col. A. S. DAGGETT.

INDEPENDENT BRIGADE FIFTH ARMY CORPS.

Brig.-Gen. JOHN C. BATES, U. S. V., Colonel Second Infantry.

THIRD U. S. INFANTRY.

Colonel J. H. PAGE.

TWENTIETH U. S. INFANTRY.

Major W. S. McCASKEY.

Battery E, First U. S. Artillery, Capt. ALLYN CAPRON.

Troop D, Second U. S. Artillery, First Lieut. H. T. ALLEN.

Troop F, Second U. S. Artillery, Capt. L. M. BRETT.

THIRD BRIGADE.

Brig.-Gen. A. R. CHAFFEE, U. S. V., Lieut.-
Col. 3d Cav.

SEVENTH U. S. INFANTRY.

Lieut.-Col. G. S. CARPENTER.

TWELFTH U. S. INFANTRY.

Lieut.-Col. RICHARD COMBA.

SEVENTEENTH U. S. INFANTRY.

Lieut.-Col. J. T. HASKELL, wounded.
Capt. L. M. O'BRIEN.

SECOND DIVISION FIFTH ARMY CORPS.

CAMPAIGN OF SANTIAGO DE CUBA 1898.

KILLED AND WOUNDED.

FIRST BRIGADE SECOND DIVISION.

EIGHTH UNITED STATES INFANTRY.

Killed—Corporals Charles Meyer, Daniel McIntosh, Artificer Charles Foley, Musician Charles M. Meade, Privates George W. Cook, John Payzur, Patrick Roach, Joseph Spade.

Wounded—First Lieut. John R. Seyburn, and forty-three enlisted men.

TWENTY-SECOND UNITED STATES INFANTRY.

Killed—Colonel Charles A. Wikoff, Comdg. 3d Brig., 1st Div.; Corporals Wm. L. Forrester, Gebhard Young, Privates James W. Bampton, Samuel Bennett, Willis Brooks, Michael Gibney, Peter Johnson, Fred W. Lynch, Martin T. Murray, Ernest A. Shetzel, Gustav V. Sutter, Michael Warner.

Wounded—Lieut.-Colonel John H. Patterson, Captains John J. Crittenden, Theodore Mosher, Frank B. Jones, First Lieut. George J. Godfrey, Second Lieut. Wm. H. Wassell, and thirty-six enlisted men.

SECOND MASSACHUSETTS INFANTRY.

Killed—First Lieut. Charles H. Field, Privates Geo. A. Brooks, Anatole Dugas, Robert G. Kelly, Joseph M. Landis, John J. Malone, Frank E. Moody, Arthur H. Packard, Geo. A. Richmond.

Wounded—Captain William S. Warriner, Second Lieuts. Oscar D. Hapgood, Daniel J. Moynihan, and forty-four enlisted men.

SECOND BRIGADE SECOND DIVISION.

FIRST UNITED STATES INFANTRY.

Wounded—Two enlisted men.

FOURTH UNITED STATES INFANTRY.

Killed—First Lieut. William C. Neary, Second Lieut. John J. Bernard, Sergeant Peter Kirby, Artificer Nels Anderson, Musician Francis S. J. Walters, Privates Richard M. Callanan, Henry F. Gruby, Albert Hossfield, Neo H. Kelly, Lawrence R. Van Valkenburg.

Wounded—Second Lieut. John H. Hughes, and thirty-five enlisted men.

TWENTY-FIFTH UNITED STATES INFANTRY.

Killed—Second Lieut. Henry L. McCorkle, Corporal Benjamin Cousins, Privates Tom Howell, Aaron Leftwick, French Payne, John B. Phelps, John W. Steele, Albert Strother.

Wounded—Captain Eaton A. Edwards, Second Lieuts. Henry L. Kinnison, John S. Murdock, and twenty-seven enlisted men.

THIRD BRIGADE SECOND DIVISION.

SEVENTH UNITED STATES INFANTRY.

Killed—Second Lieut. Thomas A. Wansboro, Quartermaster-Sergeant John W. Jones, Corporals Isidor J. Amter, Charles A. Ayer, Daniel Conway, Jesse M. Hunt, Albert R. Lewis, Martin Madden, Frederick Riney, Patrick J. Shea Band, Frank E. Wert, Privates Wm. H. Balcke, Maurice Boury, Geo. W. Campbell, Lee Carson, Charles Casaday, Harry Clark, John A. Cleary, Wm. F. Crocker, Con. Crowley, Robert D. Davis, James M. Dermody, Frederick W. Dwyer, Albert H. Gray, Oscar N. Head, Francis Hulme, Nathaniel Isler, Ralph A. Jones, Patrick Kerrigan, John W. Long, Arthur C. McAllister, Patrick McGraw, Archie McKay, Daniel Maher, John J. Maguire, Adolph Maurer, Patrick O'Connor, John R. O'Dowd, Samuel J. Ryan, August Sandberg, George Shields, John W. Slaven, Frederick Timmanus, Hermon Vean, Edward S. White.

Wounded—Major Augustus W. Corliss, Captain Jas. B. Jackson, First Lieut. John S. Grisard, Second Lieut. Herbert A. Lafferty, and eighty-three enlisted men.

TWELFTH UNITED STATES INFANTRY.

Killed—Second Lieut. Clark Churchman, First Sergeant Raimund Miller, Sergeants John Dahl, Silas T. Wilson, Privates Clarence C. Bratton, Patrick F. Gearin, Jacob Geothe, Daniel J. Kelly, Philip Lehr, Adolphus C. Scott.

Wounded—Second Lieut. Wilbur E. Dove, and thirty-four enlisted men.

SEVENTEENTH UNITED STATES INFANTRY.

Killed—Lieut.-Colonel Joseph T. Haskell, First Lieut. Walter M. Dickinson, Second Lieut. Dennis M. Michie, A. D. C., First Brig. First Div.; Artificer Joseph Ball, Privates Walter Brown, John F. Burke, Adrian S. Foor, Wm. T. Fuson, John Gray, Christian Hess, John McBride, William Sine, Leonard Weber.

Wounded—Second Lieut. Benjamin F. Hardaway, and thirty-five enlisted men.

INDEPENDENT BRIGADE FIFTH ARMY CORPS.

THIRD UNITED STATES INFANTRY.

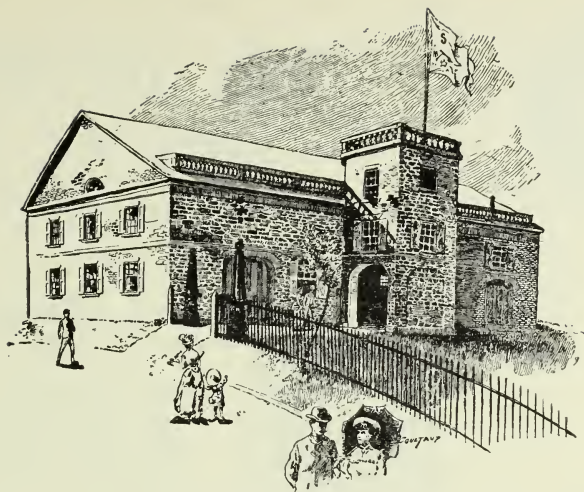
Killed—Privates Henry Bertram, Frank E. Hoppe, Albert Jindra, John E. Warren.

Wounded—Fourteen enlisted men.

TWENTIETH UNITED STATES INFANTRY.

Killed—Corporals Arthur Rowe, Oliver M. McConnell, Private Morris G. Fisher.

Wounded—Colonel Hamilton S. Hawkins, Brig.-General, U. S. Vols., Comdg. 1st Brig., 1st Div., Captains John B. Rodman, Henry B. Moon, and eleven enlisted men.



THE MUSEUM OF THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES,
GOVERNOR'S ISLAND, NEW YORK HARBOR.

Editor's Bulletin.

Colonel
Pettit's
Essay.

The Seaman Prize of 1905 (\$100) has been won by Lieut.-Col. James S. Pettit, Eighth Infantry, whose brilliant and scholarly essay was read before a General Meeting of the Military Service Institution, December 13th, and has attracted much attention, both from military men as well as the public. It is published as the leading article in this number of the Journal. A discussion of some of the main features of the paper will appear in the March number.

The
Gold
Medal,
1905.

The following essays in competition for the Gold Medal of 1905 have been received at this office:

"Loyal 28," "Moxahala 27," "X. Y. Z. 33," "Two Bars 26," "Scarlett 28," and "Sigismund 60."

Amend-
ments
to the
Constitu-
tion.

The amendments to the Constitution recently submitted for the action of the members have been adopted by a practically unanimous vote.

The
Santiago
Prize.

The Santiago Prize, 1905 (\$50), has been awarded to Capt. HAMILTON S. HAWKINS, Subsistence Department, U. S. A., for a paper entitled "Athletics in the Army."



Journal
of the
Military
Service
Institution

1878

1906

Governor's
Island
N. Y. H.

THE JOURNAL

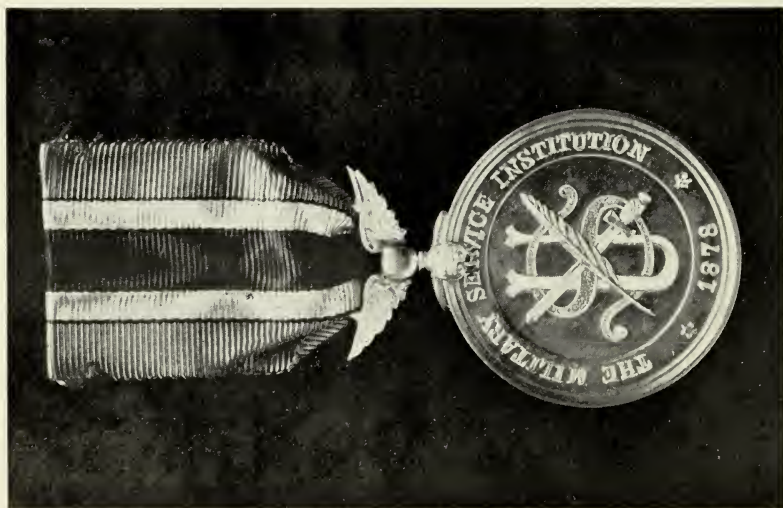
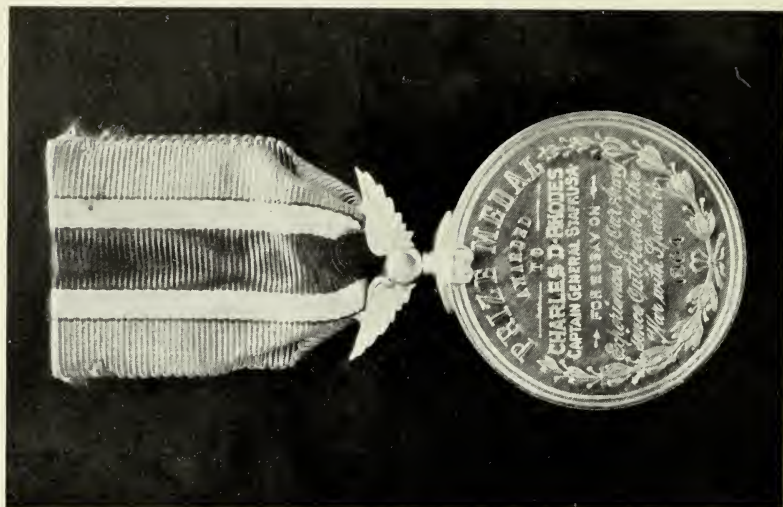
MARCH-APRIL, 1906



OME of the papers approved for early publication in JOURNAL for the year 1906.

- I. "THE ENLISTED MAN'S CONTRACT WITH THE GOVERNMENT; THE MUTUAL OBLIGATION IT IMPOSES AND HOW ITS VIOLATION MAY BEST BE AVOIDED."—(Gold Medal Prize Essay, 1905.)
- II. "THE SWISS MILITARY ORGANIZATION."—By Captain T. Bentley Mott, Artillery Corps. (Official Report, June 12, 1905. Publication authorized by 2d [Military Information] Division, General Staff.)
- III. "THE STUDY OF LAW AT THE INFANTRY AND CAVALRY SCHOOL." (Remarks to the School at the beginning of the course in Law, 1905.)—By Major D. H. Boughton, 11th Cavalry.
- IV. "BETWEEN RANK AND FILE."—By Major R. L. Bullard, 28th Infantry.
- V. "THE RIGHT OF ASYLUM." (Including the rescue of belligerents by neutrals at sea.) Graduating Thesis, Department of Law, Staff College, Fort Leavenworth, Class of 1905.—By Capt. W. D. Connor, Corps of Engineers.
- VI. "A NEW APPARATUS FOR VISUAL SIGNALLING IN THE DAY TIME."—By Capt. T. E. Merrill, Artillery Corps.
- VII. "THE NEEDS OF THE SERVICE."—By Lieut. R. H. Westcott, 16th Infantry.
- VIII. "AN ORGANIC UNIT FOR MACHINE GUNS."—By Lieut.-Col. B. L. Bargar, 4th Infantry, Ohio N. G. (Late Capt. 1st Ohio Vol. Cavalry (1898), formerly 1st Lieut. Battery H, Light Artillery, Ohio N. G.)
- IX. "PROPOSED SYSTEM OF RANGE FINDING FOR INFANTRY."—By Lieut. F. W. Griffin, Artillery Corps.
- X. "AUSTERLITZ; A REMARKABLE FORCED MARCH."—By Frederic L. Huidekoper, from the Austrian military archives.
- XI. "TYPES AND TRADITIONS OF THE OLD ARMY." "Letters from Europe in Early Days, by a Young Officer of the Army, 1828-29." (With portraits and facsimiles of original drawings.)

THE PUBLICATION COMMITTEE invites contributions of original papers, translations and comments upon current topics. Attention is called to "Gold Medal," "Seaman," "Short Paper," and "Santiago" prizes described elsewhere.



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Membership dates from the first day of the calendar year in which the "application" is made, unless such application is made after October 1st, when the membership dates from the first day of the next calendar year.

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NOTE.—Checks and Money Orders should be drawn to order of, and addressed to, "The Treasurer Military Service Institution," Governor's Island, New York City. Yearly dues include Journal.

Please advise promptly of changes of address.



Gold Medal—1906.

First Prize—Gold Medal, \$100 and Life Membership.

Second Prize—Silver Medal, Honorable Mention and \$50.

I.—The following Resolution of Council is published for the information of all concerned:

Resolved, That a Prize of a Gold Medal, together with \$100 and a Certificate of Life Membership, be offered annually by THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES for the best essay on a military topic of current interest, the subject to be selected by the Executive Council, and a Silver Medal and \$50 to the first honorably mentioned essay. Should either prize be awarded more than once to the same person, then for each award after the first, a *Clasp* shall be awarded in place of the medal.

1. Competition to be open to all persons eligible to membership.

2. Each competitor shall send three copies of his essay in a sealed envelope to reach the Secretary *on or before January 1, 1907*. The essay must be strictly anonymous, but the author shall adopt some *nom de plume* and sign the same to the essay, followed by a figure corresponding with the number of pages of MS.; a sealed envelope bearing the *nom de plume* on the outside and enclosing full name and address, should accompany the essay. This envelope to be opened in the presence of the Council after the decision of the Board of Award has been received.

3. The prize shall be awarded upon the recommendation of a Board consisting of three suitable persons chosen by the Executive Council, who will be requested to designate *the essay deemed worthy of the prize*; and also in their order of merit those deserving of honorable mention.

In determining the essay worthy of the prize, the Board will be requested to consider its professional excellence, usefulness and valuable originality, as of the first importance, and its literary merit as of the second importance. Should members of the Board determine that no essay is worthy of the prize, they may designate one or more essays simply as of honorable mention; in either case, they will be requested to designate one essay as first honorable mention. Should the Board deem proper, it may recommend neither prize nor honorable mention. Should it be so desired, the recommendation of individual members will be considered as confidential by the Council.

4. The successful essay shall be published in the Journal of the Institution, and the essays deemed worthy of honorable mention shall be read before the Institution, or published, at the discretion of the Council, which reserves the right to publish any other essay submitted for a prize, omitting marks of competition.

5. Essays must not exceed ten thousand words, or twenty-five pages of the size and style of the JOURNAL (exclusive of tables), nor contain less than five thousand words.

II.—The Subject selected for the Prize Essay of 1906, is

**“WHAT SYSTEM OF PROMOTIONS AND RETIREMENTS WILL
SECURE THE HIGHEST DEGREE OF EFFICIENCY IN THE
COMMISSIONED PERSONNEL OF THE U. S. ARMY.”**

III.—The Board of Award for 1906 will be announced in a later issue of this Journal.

GOVERNOR'S ISLAND, N. Y.,
Jan. 1, 1906.

T. F. RODENBOUGH,
Secretary.



Seaman Prize, 1906

MAJOR LOUIS L. SEAMAN, M.D., LL.B. (late Surgeon, 1st U. S. Volunteer Engineers), has founded a prize in the MILITARY SERVICE INSTITUTION OF THE UNITED STATES by contributing annually for the best two essays on a subject named by himself, approved by the Executive Council; prizes as follows:

**First
Prize**

One Hundred Dollars

**Second
Prize**

Fifty Dollars

**Conditions
of the
Competition**

Competition is open to all Officers or ex-Officers of the Army, Navy, Marine Corps, Marine Hospital Service, Volunteers or National Guard.

Three copies of each Essay on the subject must be transmitted to the Secretary of the Institution to reach his office not later than November 1, 1906. Each Essay must be limited to 15,000 words, exclusive of statistics.

All other conditions will apply as provided for the Annual (Military Service Institution) Gold Medal Prize.

"MILITARY HYGIENE; HOW CAN THE PEOPLE OF THE UNITED STATES BE EDUCATED TO APPRECIATE ITS NECESSITY?"

The Board of Award for 1906 will be announced in a later issue of this Journal.

Jan. 1, 1906.

T. F. RODENBOUGH,
Secretary.

Short Papers

(Rules adopted March 14, 1902.)

Hancock (Infantry) Prize.



The Hancock Prize: \$50, and Certificate of Award; to be given for the best original essay or paper, the award to be made under existing regulations for the Gold Medal, excepting that the paper shall contain not less than 2,500 words nor more than 6,000 words, and that but one copy of such paper shall be required from the author; said essay to be critical, descriptive, or suggestive, on a subject directly affecting the Infantry or Foot Service, which has been published in the JOURNAL of the Institution during the twelve months ending March 1 of each year and which has not been contributed in whole or in part to any other association, nor

has appeared in print prior to its publication by the Institution, nor has been published in the JOURNAL in any previous year, and excluding essays for which another prize has been awarded. The certificate of award to be signed by the President and Secretary of the Institution and the award to be made upon the recommendation of a committee of three members of the Institution, not members of the Executive Council, two of whom shall be Infantry officers to be appointed, annually, by the President; the award to be made and announced not later than May 1 of each year.

Fry (General) Prize.

The Fry Prize: to be the same as the Hancock Prize and awarded upon the recommendation of a board of three members, not members of the Executive Council, under the same regulations for papers or essays appearing in the JOURNAL during the twelve months ending Sept. 1 of each year, on subjects directly affecting the military service and not otherwise provided for; with the announcement not later than November 1.



Buford (Cavalry) Prize.

The Buford Prize: to be similar to the Hancock Prize, and to be awarded on the recommendation of a board of which two members shall be Cavalry officers, for papers published in the JOURNAL during the twelve months ending May 1 of each year, on subjects directly affecting the Cavalry or Mounted Service; with announcement not later than July 1.



Hunt (Artillery) Prize.

The Hunt Prize: to be similar to the Hancock Prize, and to be awarded on the recommendation of a board of which two members shall be Artillery officers, for papers published in the JOURNAL during the twelve months ending July 1 of each year, on subjects directly affecting the Artillery Service; with announcement not later than September 1.





The Santiago Prize.

THE NATIONAL SOCIETY OF THE ARMY OF SANTIAGO DE CUBA has founded a prize to be known as the "Santiago Prize," by contributing, annually, the sum of

Fifty Dollars

"for the best original article upon matters tending to increase the efficiency of the individual soldier, the squad, company, troop, or battery, published in the Journal of The Military Service Institution of the United States, during the twelve months ending December 1st in each year.

"The award to be made by the Council of the Military Service Institution upon the recommendation of a board of three suitable persons, selected by the President of the National Society of the Army of Santiago de Cuba, who shall report their recommendations on or before January 1st of the following year.

"Conditions to be the same as those prescribed for the Hancock Prize (see notice 'Short Paper Prizes'), Military Service Institution, excepting that the competition shall be limited to officers of the Regular Army or of the National Guard below the grade of major, and that papers shall not be less than 2500, nor more than 5000 words in length."

The names of the gentlemen selected for the Board of 1906 will be announced in a later issue of this Journal.

GOVERNOR'S ISLAND, N. Y.,
January 1, 1906.

T. F. RODENBOUGH,
Secretary M. S. I.

Gold Medallists

and others to whom Prizes have been awarded.

(*G. M.*, Gold Medal; *F. H. M.*, First Hon. Mention; *S. H. M.*, Second Hon. Mention).

- 1880. *G. M.* GIBBON, J.; Col. 7th U. S. Inf., and Bvt. Brig.-Gen. **
F. H. M. Wood, C. E. S.; Lieut. 21st U. S. Infantry.
- 1882. *G. M.* LAZELLE, H. M.; Lieut.-Col. 23d Inf. (now Brig.-Gen., retired).
F. H. M. Greene, F. V.; Capt. Corps of Engs., U. S. A.
- 1883. *G. M.* WAGNER, A. L.; Lieut. 6th U. S. Inf. (now Col. A.A.G.)**
F. H. M. Michaelis, O. E.; Captain Ordnance Dept., U. S. A.**
- 1884. *G. M.* PRICE, G. F.; Captain 5th U. S. Cavalry.**
F. H. M. Dudley, E. S.; Lieut. 2d U. S. Art. (now Col. J. A. G.)
- 1885. *G. M.* WOODHULL, A. A.; Bvt. Lieut.-Col. (Brig.-Gen., retired).
F. H. M. Dodge, R. I.; Colonel 11th U. S. Infantry.**
- 1886. *G. M.* WOODRUFF, T. M.; Lieut. 5th U. S. Infantry.**
F. H. M. Schenck, A. D.; Lieut. 2d U. S. Artillery.**
- 1887. *G. M.* SHARPE, A. C.; Lieut. 22d U. S. Inf. (now Lt.-Col. 30 Inf.)
F. H. M. Sanger, W. C.; Q. M. 2d Brig. Staff, N. G. S. N. Y.
- 1889. *G. M.* READ, G. W.; Lieut. 5th U. S. Cavalry (now Capt. 9th Cav.).
- 1891. *G. M.* REED, H. A.; Lieut. 2d U. S. Artillery (now Lt.-Col. Art'y Corps)
F. H. M. Pettit, J. S.; Capt. 1st U. S. Infantry (now Lt.-Col. 8th Inf.).
- 1892. *G. M.* STUART, S. E.; Lieut. Ordnance Dept., U. S. A.**
- 1893. *G. M.* SCRIVEN, G. P.; Captain (now Lt.-Col.) Signal Corps, U. S. A.
F. H. M. Hamilton, W. R.; Lieut. 5th U. S. Artillery (now Maj. A.C.).
- 1894. *G. M.* ELLIS, E. A.; Captain 8th U. S. Cavalry.**
F. H. M. Steele, M. F.; Lieut. 8th U. S. Cav. (now Capt. 6th Cav.).
- 1895. *G. M.* SHARPE, H. G.; Captain (now Com.-Gen.), U. S. A.
- 1896. *G. M.* PETTIT, J. S.; Captain (now Lt.-Col. 8th Inf.). 1st U. S. Inf.
F. H. M. Hill, R. G.; Lieut. 20th U. S. Infantry.
- 1897. *G. M.* FOOTE, S. M.; Lieut. 4th U. S. Art. (now Capt. Art'y Corps).
*F. H. M.** Glassford, W. A.; Capt. (now Major) Signal Corps, U. S. A.
- 1899. *G. M.* BRITTON, E. E.; Colonel N. G. N. Y.
*F. H. M.** Barry, H.; Lieut. (now Capt.) Squad. A, N. G. N. Y.
- 1900. (No Gold Medal awarded.)
*F. H. M.** Allen, H. T.; Capt. 6th U. S. Cav. (now Brig.-Gen. P. C.).
- 1901. *G. M.* STUART, E. R.; Lieut. (now Capt.) Corps of Engineers.
- 1902. *G. M.* STUART, E. R.; Lieut. (now Capt.) Corps of Engineers.
F. H. M.† Mott, T. B.; Captain Artillery Corps, U. S. A.
S. H. M. Evans, R. K.; Major Inf., A.A.G. (now Lt. Col. 5th Inf.)
- 1903. *G. M.* TRAUB, P. E.; Capt. 5th U. S. Cavalry.
F. H. M.† Jervey, J. P.; Capt. Corps of Engineers.
- 1904. *G. M.* RHODES, C. D.; Capt. General-Staff.
S. M. Hampton, C. E.; Capt. 21st Infantry.

*and Honorarium, \$50. †Silver Medal and \$50.

The Seaman Prize.

1900. Munson, E. L.; Captain Medical Department, U. S. A.
1901. Rhodes, C. D.; Captain 6th U. S. Cavalry.
1902. No prizes awarded.
1903. Jervey, J. P.; Capt. Corps of Engineers, U. S. A.
1904. Traub, P. E.; Capt. 5th U. S. Cavalry.
1905. Pettit, J. S.; Lieut.-Col. 8th U. S. Infantry.

Hancock (Infantry) Prize.

1902. (1st) Steele, M. F.; Captain 6th U. S. Cavalry.
(2d) Lewis, E. M.; Captain 20th U. S. Infantry.
1903. (1st) Beach, W. D.; Major 15th Cavalry.
(2d) Low, T. H.; Captain U. S. Marine Corps.
1904. (2d) Jarvis, N. S.; Captain U. S. A. (retired).

Buford (Cavalry) Prize.

1902. (1st) Allen, H. T.; Captain 6th U. S. Cavalry. (B. G. P. C.)
(2d) Reichmann, C.; Captain 17th U. S. Infantry.
1903. (1st) McClernand, E. J.; Major Adj. Gen. Dept. (now Lt.-Col. 1st Cav.)
(2d) Steele, M. F.; Captain 6th Cavalry.
1904. (1st) McClernand, E. J.; Major General Staff (now Lt.-Col. 1st Cav.).
(2d) Bush-Brown, H. K.
1905. No subject.

Hunt (Artillery) Prize.

1902. (1st) Chester, J.; Major of Artillery, Retired.**
(2d) Maxim, H.
1903. (1st) Lyon, Le R. S.; Capt. Artillery Corps.
(2d) Craighill, W. E.; Capt. (now Maj.) Corps of Engineers.
1904. (1st) Foote, S. M.; Capt. Artillery Corps.
(2d) Sewall, J. S.; Capt. Corps of Engineers.
1905. Schulz, E. H.; Capt. Corps of Engineers.

Fry (General) Prize.

1902. (1st) Kenan, O. T.; late Captain U. S. V.
(2d) Pierce, P. E.; Captain 13th U. S. Infantry.
1903. (1st) Schwan, T.; Brig.-General U. S. A. Retired.
(2d) Black, W. M.; Major (now Lt.-Col.) Corps of Engineers.
1904. (1st) Larned, C. W.; Prof. U. S. M. A.
(2d) Britton, E. E.; Col. N. G. N. Y.
1905. No subject.

Santiago Prize.

1904. Whelen, T.; Lieutenant, 30th Infantry.
1905. Hawkins, H. W.; Capt. Sub. Dept.

** Deceased.

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THE NEW TIFFANY BUILDING.

An Architect's Description of Tiffany & Co.'s New Home on Fifth Avenue at Thirty-Seventh Street, New York.

In the middle of the sixteenth century, the Senator, Jerome Grimani, commissioned the great architect, San Michele, "to design and construct him a palace of noble proportions." At the beginning of the twentieth century Messrs. Tiffany & Co. commissioned the architects, Messrs. McKim, Mead & White, to construct them a palace, which, also, for its purpose, should be the noblest of its kind. The modern architects sought their inspiration in the façade of the Palazzo Grimani, the magnificent edifice on the Grand Canal, now serving as the post-office of Venice, and have constructed a great home of Art and Commerce, adapted to twentieth century requirements.

Crowning Murray Hill, the shining façades of marble occupy one of the finest sites in the city. The Fifth Avenue front is one hundred and seventeen



feet long; that on Thirty-seventh Street, one hundred and fifty-two. The building is a noble example of the Second Period of early Venetian architecture; the same motives composing both fronts. To the "flaneur" of Fifth Avenue, the building is an interesting type of Italian Renaissance.

The shell of the entire building is fireproof, being constructed of marble, iron and terra cotta. The window casings, vestibules, shutters, and much other metal work throughout the building is of bronze.

Although externally the building gives one the impression of the three stories represented by the orders, it is internally subdivided into seven stories, basement and cellar.

The main floor has two entrances on Fifth Avenue and one on Thirty-seventh Street, protected by glass and bronze vestibules.

The color scheme of the principal floor has been studied and executed by an artist who has not only produced beautifully harmonizing tones and values in all the effects, but has thoroughly understood the possibilities of the materials employed. The result has been that the interior is without question the most beautiful commercial interior in our country. It is a triumphant proof that an architect's work, even in solving a purely business problem, may be of high artistic excellence. A business house has shown so liberal and far-sighted a policy as to be willing to spend hundreds of thousands of additional dollars merely for the sake of having "beautiful objects in a beautiful house." Few business men or companies would see the value of such an investment. But the willingness of the few does more to elevate architecture in commercial buildings in America than the combined artistic efforts of all her architects.

Gray, foggy tones—"grid-de-perle"—have been used almost exclusively. The coffered classical ceiling is supported by columns of purplish-gray Formosa marble, with composite capitals. The woodwork is of close-grained hard, Philippine teak, treated with a soft, silver-finish and is inlaid with borders of polished steel and brass. The floor, also of teak, is laid in fifteen inch widths and bordered with brass strips and marble slabs.

The artificial lighting is from silvered chandeliers. The walls are divided into panels of polished Terrazzo of a speckled texture. The elevators are the finest piece of artistic steel work in this country and places our metal workers on a level with the great smiths and forgers of the German Renaissance. Directly back of the main elevators is a special Exhibit Room, trimmed in ash and with a coffered ceiling inlaid with brass.

The main staircase, eight feet broad, is of Formosa marble, similar to the columns.

The portion of the second floor facing Fifth Avenue, devoted to the exhibition of bronzes, is subdivided by columns of the Pompeian Ionic character.

President's Room and the Board Room are both executed in mahogany. The remainder of the second floor is devoted to the Counting Rooms, Correspondence and Mail Order Departments.

The larger part of the third floor is given over to the Pottery and Glass Department. On this floor are also the Registry Offices and Order Departments.

On the fourth floor are the Library, Heraldic, Designing, Engraving and Photographing Departments; also the Watch Shop.

The fifth floor has the Goldsmiths' Shops, and the Diamond-cutting and Polishing Departments.

The sixth floor contains the Clock, Case Goods and Leather Work Shops, Storerooms, etc.

The seventh or top floor did not exist on the original plans. The architect, finding how much available room remained, decided to vault up under the outer iron framing, and so constructed a magnificent hall of fifteen thousand square feet, which recalls the old city halls of the Hanse cities. In the center of the room is an elliptical skylight twenty feet broad and sixty feet long.

The Safe Deposit Vaults and storage for valuables are in the sub-basement. Massive silvered iron bars surround this department, the walls of which are lined with Pavonazza marble.

The main vault is two stories below the Fifth Avenue sidewalk. It is encased on all sides by gun metal and seems the embodiment of a bomb-proof shelter.

The walls of the Coupon Rooms are of white opaque glass.

Under and directly back of the Thirty-seventh Street sidewalk lies the Shipping Room. Here all packages from the various departments are loaded into the delivery wagons, which are then raised by an independent elevator to the protected vestibule inside the building, from which they can run to the sidewalk.

One tie binds, architecturally, Tiffany & Co.'s old building to the new, for the old Herculean Atlas supporting a clock, upon which we have looked for so many years while hurrying across Union Square or up Broadway, still stands in front of the building

Visiting one mediæval place after another excites wonder how one age could be so prolific in magnificent structures. The example of earlier times is being imitated, with the exception that we, in the twentieth century, spend money lavishly on our business buildings, while they of the fifteenth and sixteenth centuries lavished it on their private residences. In purely commercial structures, the Tiffany Building unquestionably reaches the highest mark of artistic excellence up to the present time.

* * * *

The house of Tiffany & Co. was founded by Charles L. Tiffany.

The opening of the new building on Fifth Avenue and Thirty-seventh Street marks the fifth uptown removal of Tiffany's & Co.'s business.

The several previous locations are interesting in the commercial history of the city as they indicate the constant uptown trend of the retail trade.

1837—259 and 260 Broadway; 1847—271 Broadway; 1853—551 and 552 Broadway; 1870—Union Square.

1905—Fifth Avenue at Thirty-seventh Street.

* * *

THE IDEAL WATERPROOF GARMENT FOR ARMY USE.

For many years officers have been experimenting and asking for the ideal waterproof garment. Rubber would soon disintegrate and rot; oil-skins were very offensive to wear, and unless kept constantly oiled would lose their waterproof qualities. Nothing would seem to stand the tropical climates. At last the ideal garment has been perfected by the E. A. Armstrong Mfg. Co., of Chicago, who have been working for several years to this end.

In their latest "ARMSTRONG ABSOLUTE WATERPROOF CAPE," they have produced a garment which is pronounced by all as absolutely waterproof. It is large and voluminous, has none of the bad qualities of the rubber or oil clothing, seems to stand the tropical climates perfectly, and more than takes the place of the ponchos on the ground under the blanket, etc. It can be packed with any other clothing without sticking to or soiling same, will not tarnish gold laces, embroidery, etc., as will the rubber; needs no attention, except to scrub it off if it gets too much soiled. Is olive drab in color.

For the mounted man it covers not only himself completely from the neck to the stirrups, but also his equipments, saddle, and saddle cloth; in fact, the whole back of the horse to forward of the saddle.

For the foot soldier, it not only covers him completely, but is a cool garment, far superior to waterproof coats in this respect, easily put on and off, and superior to poncho for bedding on wet ground. This cape has the great merit also of being inexpensive, costing but \$5, and weighs only from 4½ to 5 pounds, 48 to 56 inches long.

Several hundred of these capes have been in use by army and National Guard officers, for from six months to nearly two years. Numerous letters of commendation have been received from these officers. All state that as yet no evidence of wear can be seen, all absolutely waterproof.

Capt. — Troop D, Fourth Cavalry, ordered Armstrong Absolute Capes for entire troop, for Philippine service. To the Post Exchange, Fort Ethan Allen, Vt., several dozen were sent. It says: "Without exception the numerous officers using these capes report them absolutely waterproof; although in use several months, show no signs of wear to any extent, having stood the various trips splendidly. It is believed this is the ideal cape for military service."

Lieutenant —, Second Cavalry, Philippine Islands, says: "I am well pleased with it, and have used same in many severe rains lately."

Lieutenant —, Sixteenth Infantry, Philippine Islands, remarks: "I find your cape an excellent article. It sheds water like a duck's back, and can be used either mounted or dismounted."

Dozens of letters have been received similar in tone to the above, and it would seem that "The House of Armstrong" has produced that which the army—both officers and enlisted men—have been looking for.

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Attention is invited to the high standard of quality in Milk Products that is guaranteed by virtue of forty-eight years sustained supremacy of Borden's Condensed Milk Company, the originators of Condensed Milk. The scientific methods and close observance of rigid sanitary regulations in the preparation of their goods establish them "Leaders of Quality." This position is sustained by the Highest Awards wherever exhibited for purity, flavor and quality on their Eagle Brand Condensed Milk, Peerless Brand Evaporated Cream and Borden's Malted Milk, Eagle Brand. The use of Malted Milk as a food easily assimilated by young children, convalescents and nursing mothers should not obscure the fact that it is enjoyed by people of all ages in perfect health. BORDEN'S CONDENSED MILK is a milk food prepared by the most improved process, whereby all the nutritive elements of the richest cows' milk and strengthening cereals are scientifically combined and the moisture evaporated, the finished product being a dry powder ready for immediate use by the addition of hot or cold water. It is a complete food which refreshes and recuperates very rapidly, and is stimulating without any reaction. It may be used as a basis of many drinks and dishes ordinarily prepared with fresh fluid milk. In all these combinations BORDEN'S MALTED MILK retains its high food value, while offering the additional advantages of small bulk, perfect keeping qualities and entire freedom from the dangers which frequently attend the use of fluid milk furnished by unreliable dealers.

* * *

THE PRUDENTIAL GIRL FOR 1906.

The girl whose picture adorns the 1906 calendar issued by The Prudential Insurance Company of America will undoubtedly have many admirers. She will be known as "The Prudential Girl for 1906," and her attractive features and sweet expression will assure her a warm welcome in millions of homes, where the Prudential calendar is an expected guest each year.

All the months and days of the year are grouped on the left-hand and right-hand margins of the calendar, where they can be readily referred to. On the reverse side are two columns, mounted with the company's well-known trade-mark, the Rock of Gibraltar, and a condensed statement of the various forms of policies issued by The Prudential. The Company announces that any person writing to the Home Office, at Newark, N. J., will be supplied with a copy.

JOURNAL
OF
THE MILITARY SERVICE INSTITUTION
OF THE
UNITED STATES.

"I cannot help plead to my countrymen, at every opportunity, to cherish all that is manly and noble in the military profession, because Peace is enervating and no man is wise enough to foretell when soldiers may be in demand again."—GENERAL SHERMAN.

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THE ENLISTED MAN'S CONTRACT WITH THE GOVERNMENT—THE MUTUAL OBLIGATION IT IMPOSES, AND HOW ITS VIOLATION MAY BEST BE AVOIDED

BY CAPTAIN EVAN M. JOHNSON, JR., EIGHTH INFANTRY,
UNITED STATES ARMY.



At no time perhaps in the history of the army has the breach of the "Enlisted Man's Contract with the Government" given the military authorities greater concern than at present. The loss by desertion during the past year of about one man out of very twelve is so great, so unreasonable, as to warrant the belief that there must be some grave defect in our system of military administration.

Various reasons have been adduced, those most generally advanced being: the inferior class of men, mentally, morally and socially, enlisted; the low wage paid the soldier; the inadequate punishment for the crime.

To the first of these it may be replied that the class of men in service to-day is perhaps better than it ever was before; and it may be accepted as a fact that it will not reach a higher average.

The second cannot, *in itself*, be considered a "cause." Thirteen dollars per month spending money is what few civilians of the soldier class can boast at the end of the month.

The third reason hardly enters into the question. A man

who makes up his mind to desert does not care whether the punishment is one year or five. As he has no idea of being caught, the severity of the punishment, as a deterrent, is of no value.

The cause seems difficult to locate. Is it the underlying restlessness of the American people, as has been claimed, or is there not perhaps some injustice done the soldier, something in his contract not lived up to, which causes a feeling of discontent and dissatisfaction, and ultimately desertion?

Recent comparisons which have been made as to the class of men found in the armies of Continental Europe and our own, with the evident idea of urging the authorities to obtain a better grade of recruits, are idle and futile. In Europe the "Nation is in Arms," from the highest to the lowest, service being compulsory. With us it is voluntary; and as its rewards in time of peace, compared with those of civil life, are poor, it not only follows that recruits will not come from the most intelligent and ambitious class, but that it is only the stringent recruiting regulations in force, which saves the army from being filled in great part by men from the worthless and criminal classes.

As a matter of fact the army is principally recruited from the laboring, farming and mechanic classes of the country, and the recruits are men decently brought up, of fair habits and good character, who have that intelligence, independence and respect for themselves which is characteristic of the average American.

These are the men that make our soldiers and our deserters, good sturdy citizens, who enlist for the most part with the idea of faithfully serving the Government for the period of contract.

And what are the terms of this contract? They appear in the oath, which the soldier, after having passed the necessary moral and physical examination, signs and swears to*:

Why is this contract so often broken? Unless we ascribe it to innate perverseness and cussedness, there must be some cause which it behooves us to determine, and having determined, to apply a remedy.

And for this remedy we must look to ourselves, the attitude of the average civilian toward the crime of desertion being

*See fac-simile of enlistment paper on opposite page.

NOTE.—Indelible or permanent marks found upon the person of a Recruit will be here noted: _____

THE UNITED STATES OF AMERICA.



STATE OF _____ }
CITY OR TOWN OF _____ } ss.

I, * _____, born in _____, in
the State of _____, aged _____ years and _____
months, and by occupation a _____, **DO HEREBY ACKNOWLEDGE**

to have voluntarily _____ enlisted this _____ day of _____ 190
as a **soldier** in the ARMY OF THE UNITED STATES OF AMERICA, for the period of *three years* unless
sooner discharged by proper authority: And do also agree to accept from the United States such bounty,
pay, rations, and clothing as are or may be established by law. And I do solemnly swear (or affirm)
that I will bear true faith and allegiance to the *United States of America*, and that I will serve them
honestly and faithfully against all their enemies whomsoever; and that I will obey the orders of the
President of the United States, and the orders of the officers appointed over me, according to the Rules
and Articles of War.

(* See note.) _____ [SEAL.]

Subscribed and duly sworn to before me this _____ day of _____ A. D. 190

Recruiting Officer.

I CERTIFY that I have carefully examined the above-named man agreeably to the General Regulations
of the Army, and that, in my opinion, he is free from all bodily defects and mental infirmity which would,
in any way, disqualify him from performing the duties of a soldier.

Examining Officer.

I CERTIFY that I have minutely inspected the above-named man, _____
previous to his _____ enlistment, and that he was entirely sober when enlisted; that to the best of my judg-
ment and belief, he fulfills all legal requirements; and that I have accepted and enlisted him into the
service of the United States under this contract of enlistment as duly qualified to perform the duties of
an able-bodied soldier, and, in doing so, have strictly observed the regulations which govern the Recruit-

ing service. This soldier has _____ eyes, _____ hair, _____ complexion,
is _____ feet _____ inches high.

[SEAL.]

Recruiting Officer.

* NOTE.—The correct name of the recruit will be ascertained, and great care will be exercised in order that it may be
correctly written and signed. The christian name must not be abbreviated, but if it consists of more than one name, only
the first will be written and signed in full.

such that we can expect no outside help, physical or moral, in checking the evil.

The first thing to ascertain is the man's attitude on enlisting, and the reasons which impel him to enlist:

These reasons are: either the love of a soldier's life, a desire to see the world, or inability to procure work; in brief, they hope for glory, a change or a home; and all are to a greater or less extent disappointed, partly on account of unavoidable, and partly of what may be called "avoidable," causes.

For the first, such as a condition of peace; the second, the necessity for men at certain places; the third, the fact that military restraints are not usual in a home—there is no remedy, and the natural good sense of the man makes him realize this and accept the conditions, unless there are other causes, which, added to the disappointment he may feel, induce what appears to him a condition so intolerable that he considers he has just and sufficient cause to break a contract in which the advantages are all on one side.

What, then, are these "avoidable" other causes which lead to so radical a measure as desertion; and to which the great majority of the breaches of contract are attributable?

In the order of their relative importance they may be stated to be as follows: first, Fatigue, including extra and special duty; second, Debt; third, Improper Use of Confinement as a Summary Court punishment; fourth, Removal of the Beer and Wine Feature from the Post Exchange; fifth, Recruiting Depots; sixth, The Company Mess.

To suggest remedies for the foregoing "causes" it will be necessary to consider each in turn from what may be presumed to be the soldier's point of view.

With this object in mind, let us consider the first "cause" given, *i.e.*,

FATIGUE, INCLUDING EXTRA AND SPECIAL DUTY.

If work, laboring or mechanical, is desired by a man, it can be readily obtained, under present conditions, with much better pay and much less restraint in civil life than in the army. Men do not, therefore, enlist for this purpose, but often with the idea of avoiding it, and are disappointed—even disgusted—when they discover that much of the duty falling to them is of the same nature as they have been performing prior to entering the service.

The soldier's idea, and that of any civilian, is that he will have to do lots of drilling, perhaps some fighting. That he may be compelled to labor, other than taking care of his equipment and barracks, never enters his head. If it did, it is probable that he would never enlist.

As a matter of fact, from his entry into service the greater part of his duty consists of manual labor. He not only works in his barracks to keep them and his equipment clean, but on the post and reservation. As a laborer he becomes expert with the pick and shovel, the rake and broom. He is detailed as clerk, blacksmith, painter, carpenter and plumber; in fact, he is a jack of all trades, and certainly not "master" of the soldier's. This is not what the man enlisted for or wanted, and he feels more or less vaguely that he is cheated. The glitter and glory that he expected are not apparent, as he goes around in his brown canvas fatigue suit, shovel on shoulder. He is, however, sensible enough to realize that under our military system certain fatigue—distasteful as it may be—is necessary; and it is not at this, but at the unsystematic, trifling way in which it is usually allotted and carried out that the soldier rails, and which causes discontent and desertion.

The work is of two kinds, mechanical or clerical, and ordinary laboring work; the first constituting what is called extra and special duty, the latter fatigue duty.

For duties of the first class soldiers receive special compensation or privileges or both. These "privileges" usually take the form of exemption from practically all military duties, all fatigues, often from roll calls; and it is not an unusual thing to find some of the men allowed to sleep out of quarters. The practical result is that they are, to a great extent, removed from the immediate control of their company commander, and become slack in dress, drill and discipline. Their share of military duty falls upon their comrades, who naturally resent the addition. Often these details are made in opposition to the wishes of the men themselves, and it is not an uncommon thing for them to get drunk or stay away with the avowed intention of getting out of the work. In short, a very general dissatisfaction on part of officers and men exists, captains feeling that the military efficiency of their companies is impaired, the other men resenting the privileges and exemptions, not because they like or want the class of work, but because of a feeling that the rewards are given for duty that is not a sol-

dier's, and that the men who do and want to do the real "soldier" work get the rough end of it, being available at all times for any old job and all the regular fatigue which may happen along. Gradually they come to think that the "soldier" part of the business in the army is the least important, and a discontented, more or less imposed upon feeling arises. And worse than this, the "soldier" spirit dies out when it is seen that the men on detail are apparently better off than those doing "duty."

As a matter of fact, it is very questionable as to whether the Government in compelling, against their wishes and at an arbitrary compensation, the skilled labor of extra and special duty men—a class of skill their peculiar property and which they did not contract to give to the United States—has not been the first to violate the "mutual obligation," and in so far is responsible for the failure of certain men to fulfil their part of the contract. It has the "might," but has it the "right"?

Unfortunate as is this condition of affairs, its worst phase appears only when considered in connection with "fatigue," the bugbear of the soldier and "cause," it is probable, of the majority of the desertions in the army.

Would that some scheme might be evolved whereby fatigue, other than the care of his barracks, might be eliminated from a soldier's life—a consummation to be prayed for devoutly.

This ideal is not likely to be attained. Certain fatigue work is a necessity, and the best that can be hoped is to bring about a state of affairs more satisfactory, more economical in time and labor than the present system, if anything so trifling, unending and unsystematic as the ordinary post fatigue can be dignified by the name of system. As generally conducted, it is not only one of the principal causes of desertion, but it is indirectly a cause of a lowering of the morale and discipline of the entire army.

No one who has had experience with fatigue parties will for one moment pretend that, as a rule, the work is conducted in a businesslike or satisfactory manner. Men "put in time," and usually do as little as they can without being punished. Working parties, as a result, are large, often necessitating, in addition to the regular daily fatigue details, special details from companies.

The non-commissioned officers in charge of working parties will not enforce a duty with which they are not in sympathy, the supervision of which they dislike.

Then why should the soldier work? His thirteen dollars per month are assured. If he finishes one job he is immediately set at another; so what object has he in hurrying. He gets neither credit nor reward. So he grumbles and "soldiers" through his task until recall, and goes home dirty and discontented, "cussing" the service and wishing he had stayed outside, since he "has to shovel dirt." There is, in short, no incentive; and before it can be expected that a duty, distasteful at its best, will be well and quickly performed, the soldier must be made to see that there will be a substantial return for his effort.

That this fatigue, taken in connection with extra and special duty, lowers the "morale and discipline of the entire army" is easily susceptible of proof. It has been said that men do not enlist to labor, but drill. They expect lots of this; most of them are probably prepared to like it, for all men have more or less of the soldier spirit. And what steps are usually taken to foster this liking? The one duty which is sacrificed to every other is drill. Fatigue parties are usually excused, and the company—already depleted by guard, extra and special duty details—turns out so small that it is impossible to properly perform the exercises necessary to fit it for its ultimate object—war; so the drill is gone through in a perfunctory, half-hearted manner by both officers and men. All are taught that military duty is subordinate to work; and it can be easily understood that morale and *esprit* are seriously affected.

The foregoing statement is sufficient to show that the extra and special duty and fatigue system, as at present conducted in the army, is a fertile source from which to breed desertion; for discontent is engendered among the men, first from having to perform duty they did not anticipate and which they do not consider fit for a soldier, and second on account of the lack of system observed in regard to this duty. Is it any wonder, that there are so many desertions?

Having, then, considered the "cause," it is necessary to suggest some means of modifying the evil; for eradicate it we cannot.

The most obvious remedy for the extra and special duty details is the creation of a special service corps whose mem-

bers would perform the clerical, mechanical and manual labor now performed by soldiers on extra and special duty. This would require legislation, and it is believed that a proper presentation of the subject by those in authority, and an earnest effort on their part, would secure the necessary action by Congress. Such legislation having been obtained, orders should be issued and strictly enforced to the effect that enlisted men should not even temporarily be employed in this class of work, or little by little the habit would grow of using soldiers as helpers, and gradually the same old conditions would recur, except that the soldier, instead of being employed to do the work on extra duty pay, would *assist* the service corps man *on no pay*, and be even more discontented than at present.

Pending legislation of this class, much might be done to improve the present condition. In the first place, extra and special duty men should be required to attend all drills. The regulations at present, paragraph 173, state that they "will attend as many inspections, drills and other duties as the commanding officer deems practicable."

Some commanding officers interpret this to mean no drills or duties; others one drill a week. It is the rarest thing in the world that daily attendance is enforced. The quartermaster, commissary or adjutant protests that if the men are taken from work their departments cannot be kept in shape. This is sheer nonsense, and it is only a bad custom that tolerates the very general abuse of the regulation. Not the least harm would result to the departments if *all men attended drill every day*. This applies just as fully to fatigue parties. *Drill should be the first duty*. The companies at peace strength are at best too small for proper instruction, and to further deplete them by details other than guard is radically wrong. Let all men attend, and at least effective work is assured in the company. The men, seeing that military duty is first, respect that duty, take pride in doing it well, and in their trade.

The closest supervision should be exercised by post commanders as to the strength of details. The tendency is to have too many men for the work to be done, partly as a result of the shiftless, half-hearted way in which it is performed, partly from the tendency on the part of staff-officers, who—looking to the efficiency of their own departments rather than the whole—ask for more men than are absolutely neces-

sary to properly perform the work of these departments. Details should be held down to a minimum, although if required to drill as suggested, the evil as regards extra and special duty men who are paid and have privileges would not be so great even were *these details* somewhat large. It is over fatigue that the closest care and supervision should be exercised. Men should not be allowed to feel that if they stayed in their barracks they were liable at any minute to be picked up for work. An officer in charge of the police and other work in a post, if he understands his business, knows exactly what it is necessary to do each day to keep that work up and the post in condition. He should allot to his fatigue party a definite task, to be subdivided among the members, who should understand that, this work finished, they could return to their quarters without fear of further detail; or, failing to complete the work, they would be compelled to turn out the next day for this purpose. This method would give a definite object and offer as reward to the man such time as he was able to save from the working hours of the day, and as punishment to the lazy, another working day; in other words, an "incentive." It would remove the idea of everlasting pottering, and, as the work was more speedily and better accomplished, details could be reduced or hours shortened. One half day's fatigue—the afternoon—is sufficient for all ordinary post work.

At the risk of seeming egotistical, the writer does not think that he can better show what may be accomplished in the way of lessening fatigue than by relating his own experience for three years as quartermaster and commissary at a post in one of the large cities, where headquarters and four companies of his regiment were stationed. Fatigue was unusually hard, owing to the construction of new barracks, parades, walks, etc. On assuming charge it was found that there was a daily fatigue party, excused from drill, of eighteen men (two days' old guard). Observation showed that work was being done in the usual perfunctory manner, and, with the consent of the commanding officer, a system was put in force—and later modified—which had a material effect on the fatigue. The men were informed that a certain amount of work would be expected of the fatigue party each day, and that if that were done they would not be required to turn out for the second day's fatigue. This reduced the fatigue party to nine men

daily. The amount of work to be performed was personally calculated by the writer, who exercised close supervision. Shirks were given a second day's fatigue. The work seemed to be done about as easily by the nine men as by eighteen. A little later permission was obtained to use the fatigue party in the afternoon only, men to attend drills, other spare time to be their own. The work still went on satisfactorily, nine men doing in the afternoon what originally it had taken eighteen an entire day to accomplish. After a while tasks were allotted and the men told that, when finished, they might go to their quarters. The work was finished so rapidly that, after the first two or three days, these tasks were increased one-third to one-half in order to keep the men out longer; and even then they would finish from a half to three-quarters of an hour before recall.

This result was accomplished by three means: first, close personal supervision; second, by offering the men as incentive shorter hours, a given task, and the knowledge that when it was completed their time would be their own; third, all shirks caught were punished with extra tours of fatigue.

There were, occasionally, times when extra men were necessary; but this was exceptional. During this period the office force of the quartermaster's department was a regimental quartermaster-sergeant, a clerk and a messenger. These men took charge of all clerical work, issuing of clothing and other supplies.

The commissary force consisted of the commissary sergeant and one helper. All extra and special duty men, except the provost sergeant and one stable man, drilled. The system was satisfactory to officers and men, and it is believed that some similar one put into general effect would materially lessen desertion; first, by creating a more soldierly spirit, the result of drill by all the men and consequent greater efficiency of companies; second, in offering some inducement for hard work by making the soldier understand that upon the manner in which he worked would depend the length of his fatigue tour and the number of such tours; third, by requiring from commanding officers the closest personal supervision over fatigue and extra and special duty details, which should be kept at a minimum.

In support of the argument that fatigue plays a very impor-

tant, if not the principal, part in desertion, statistics are given as follows:

Forts Jay, Brady, Wayne, Porter and Niagara have each four companies of infantry performing about the same duties under similar conditions, with the exception that at all of these posts except Jay and Wayne the troops do the post fatigue. At Jay all of this work is done by general prisoners, and at Wayne twenty-five general prisoners, practically all. The guard duty at Jay is unusually and excessively hard on account of the military prison, men going on guard every fourth day, while at the other posts they go on about every ninth or tenth day. That this excessive *military* duty does not influence desertion, and that *fatigue* does, is indicated by the list of desertions, which have occurred from July 1, 1904, to July 1, 1905, from the companies stationed at these posts:

POST	NO. OF DESERTIONS.	REMARKS.
Fort Jay, N. Y.....	12	All work done by prisoners
Fort Wayne, Mich.....	14	Practically all work done by prisoners.
Fort Porter, N. Y.....	40	Work done by troops.
Fort Niagara, N. Y.	41	Work done by troops.
Fort Brady, Mich.....	43	Work done by troops.

It may be assumed that all other causes average. This is the one radical difference, and the inference is warranted that this difference, fatigue, is the cause of the excess of desertion. Remove or systematize the causes; let the man feel that he was not, when enlisting, being hired on false pretenses as a laborer, or worse—a mechanic, and it will be found that desertion will be materially lessened.

The second cause advanced for the soldier's breach of contract is

DEBT.

Examining the contract (oath of enlistment) it is seen that in return for certain service the soldier agrees "to accept from

the United States, such bounty, pay, rations and clothing as are or may be established by law."

It will be observed that there is nothing which specifies the amount of compensation. This the law at the time of the soldier's enlistment determines.

In this contract there is a mutual obligation on the part of the soldier to serve, and on part of the Government to compensate him according to law for his service. That it is the intention of the Government to be absolutely fair there can be no question, and one would hesitate to state that the Government had failed to be "absolutely fair," and to carry out its part of "the mutual obligation." Yet it is a very serious question as to whether this is not the case, and as a consequence one of the direct causes for the soldier's violation of contract.

While not specifically stated, equity demands that the Government pay the soldier the allowances he accepts when he enlists. This is understood, and any radical change, while perhaps legal, would certainly not be equitable, and the soldier would feel that since the Government was not living up to its part of the contract, on his side he would be justified in breaking it. This being the case, if it can be shown that there is on the part of the Government, even indirectly, just such a radical change in the remuneration, one cause at least for desertion will have been determined, and may be eradicated.

The law provides that the soldier shall receive thirteen dollars per month, food, lodging, medical attendance when sick, and an allowance sufficient to pay for his clothing. While he actually receives these allowances, he is so conditioned that in so far as his pay and clothing are concerned the intention of the law in creating these (if it were intended that he should enjoy them) is defeated; for there is a lien against his pay and clothing which entirely changes their values.

If the thirteen dollars per month which the Government gives were really his, the much vaunted claim that the American soldier is the best paid of his kind in the world would be true; but as a matter of fact he has so many demands on this pay that if he can count on seven dollars per month clear he is fortunate.

The regulations require that he keep himself and his equip-

ment neat and clean, and that his clothing fit. No adequate provision, however, is made for carrying into effect these regulations, and as a result each month a part of his pay goes as follows: two dollars for laundry; one dollar for barber; one dollar for cleaning material, soap, towels, etc., and about two dollars to the tailor for altering his clothing. In brief, the Government compels the soldier to expend on an average of six dollars per month on his person, equipment and clothing, in order to avoid punishment for not being in proper condition. This may be called the breaking of the contract on part of the Government, for these expenditures are compulsory, although certainly not contemplated by the framers of the law, or by the man when enlisting.

In addition to this the clothing is a further tax on the soldier's pay, owing to the unbusinesslike and unfair method of settling the account. At present this account is settled December 31st and June 30th of each year, and at these times should the soldier have overdrawn his half-yearly allowance of clothing, a common occurrence in the first year, another charge is made against his already depleted pay for the value of the clothing he has been compelled to overdraw in order to be properly uniformed. This clothing when drawn does not always fit neatly, and as before stated, the soldier pays a tailor's bill to correct this fault.

In these two instances, pay and clothing, it certainly does not seem that the Government is carrying out its part of the mutual obligation imposed by the contract. By law the soldier is assured of thirteen dollars per month and proper clothing. In reality he can ordinarily count upon about seven dollars per month, and during his first year it is not an uncommon thing for him to draw no pay for a month or two on account of clothing overdrawn, his personal debts meantime accumulating to cause him future difficulties. Steps should be taken to remedy this unintentional breach of contract, Debt is undoubtedly one of the principal causes of desertion, and for this condition it can easily be seen that the Government is responsible to the extent that it diverts from the soldier for military necessities, his pay.

For the soldier has other debts, and the freer his pay, the greater the probability of his paying them and keeping out of trouble. At almost all posts there are exchanges which the soldiers are encouraged to patronize. These institutions

have official recognition, and the soldier is compelled to settle his indebtedness. This being done the average man will find himself, under the present conditions, nearly penniless, and if it be the time of the half-yearly clothing settlement, or if through misconduct he has been court-martialed and fined, he will not only be penniless, but in debt, and with little prospect of getting clear. Discouraged, disheartened, hopeless of being able to get along, the man breaks his contract and deserts.

It would seem that much of this unsatisfactory state of affairs might be obviated by carrying out what is the undoubted intention of the law, and giving the soldier thirteen dollars per month and his clothing free.

Either one of two things must be done; the soldier's pay increased, or some means found which will leave it practically free. The second method is much the better for the man and Government, and the following plan is suggested.

Provision should be made for the issue to the various companies of proper cleaning material for arms and equipment; towels, toilet soap, blacking, brushes, razors, etc., in fact, every article necessary to keep the men and their equipment in order. This could be done at a slight cost to the Government.

The Quartermaster's Department should arrange with some laundry or person to do the washing for the soldiers. The cost per man would not exceed one dollar per month. When such arrangement is not possible a credit should be given the soldier of the amount and added to his clothing allowance.

When certified to as necessary by his company commander the expense for altering a soldier's uniform should be borne by the Government, and paid by the Quartermaster's Department.

The present method of settling clothing accounts, as before stated, is unbusinesslike as well as objectionable. Most men entering the service have to pay for additional clothing during their first year, and on discharge have a credit which is paid to them. A far better and more logical system would be one in which a running account was kept with the soldier until the end of the second year, and then a balance struck. It would be found that the amount overdrawn in the first would usually be evened up in the second year, and

the practice of charging for clothing overdrawn on the pay-rolls and causing the soldier to go without pay for one or two months be avoided.

The adoption of these or similar measures would leave the pay of the soldier free from the direct monthly drain imposed by the present system. One of the principal causes of the breach of contract, *i. e.*, debt, would be materially lessened, and the boast that we have the best paid army in the world be nearer the truth. To give a man thirteen dollars per month and then compel him to spend half in order to keep himself in a condition to avoid punishment for lack of neatness, cleanliness, etc., is not very logical or generous, certainly not equitable, and it may be fairly claimed by the man that an injustice is done him, and that in deserting he is not the first to break the contract.

IMPROPER USE OF CONFINEMENT.

The third cause given for the breach of contract is "Improper Use of Confinement as a Summary Court-martial punishment. Through the fines imposed this cause is closely allied with that second given, *i. e.*, debt, but there are other reasons which in themselves should cause a change in the present methods, and to which may be traced many breaches of the man's contract.

When men enter the service they find a condition of affairs radically different from that to which they have been accustomed, and it takes about a year before they adapt themselves to their environment. During this year many, through carelessness, high spirits, a lack of realization of the obligations of military discipline and similar causes, find themselves before a summary court, and are fined and imprisoned. There can be no question but this imprisonment is a source of keen mortification, carrying with it a sense of degradation. To a certain few it brings a sharp and sudden realization of the military life, and results in a good soldier. To the many it is the first step in the path which leads to desertion, certainly to dishonorable discharge; and, viewed in a broader sense, the first step toward sending a man back to civil life a potential jailbird, a worse instead of a better citizen for his military training.

If it be admitted that the soldier on enlistment is a respectable man, it will easily be understood what a loss of self-

respect he must feel on finding himself behind the prison bars for the first time, the associate with all that is worst in the army. No matter how just his punishment, and from his point of view it may be unjust or unnecessarily severe, he feels resentful. During his confinement he is more or less influenced for bad by his associates. Prison life loses its terrors, the feeling of shame wears off, and he becomes accustomed to the idea. He is released, and, while having no intention of getting into trouble again, he has lost his first dread of confinement. When next tempted to commit some crime, the result of which will send him before a court, he is not as likely to be deterred by fear of punishment as before he became acquainted with the interior of the military prison. Each fresh committal makes easier the thought of the next, until the soldier gets to be worthless, and is finally discharged by sentence of a military court, or feeling that his officers are down on him, that he has no chance, or that he has been unjustly treated, he deserts. In either case he goes back to civil life, embittered, ashamed of that part of his career of which ordinarily he should be able to speak with pride, and from his prison association and lower moral standard, a more likely recruit for the criminal classes; in fact, in the case of a deserter, already a criminal.

There will always be some men of whom nothing good can be expected; but, on the other hand, there are many more intended for better things than those just outlined, and it would seem that as the present method is inadequate to save them, a better, if possible, should be devised.

Imprisonment is degrading, and for all summary court punishments during the first year, or for a first offense in any period of an enlistment, it should be abolished. There are, of course, occasions—such as drunkenness—when restraint is temporarily necessary; but as soon as the immediate necessity for the confinement has passed the man should be released. A graduated scale of punishments should be established. Fines not to exceed in one month more than half the soldier's pay, confinement to the post or barracks for a stated period, extra tours of fatigue duty, so many extra drills or tours (not guard duty) to be walked in heavy marching order.

Where pay was forfeited a good plan would be to make the forfeiture, at the discretion of the court, take the form of a deposit with the paymaster. Money deposited to be

paid on honorable discharge would be an incentive to good conduct.

These and similar punishments would seem sufficient for the ordinary summary court offenses, and would be just as effective as confinement. This will keep the man for a certain time away from the guard-house and its associations, and even if he starts in wrong and gets a couple of trials, he may by that time brace up, for he will have been long enough in the service to have "caught on" and realize just what the guard-house and its association means. In addition, the man would be available for all regular duties, and some other soldier would not, as at present, be obliged to do his duty.

When, during his first year and a half of service, a soldier has had, within the previous year, five convictions by a court-martial, he should be allowed to transfer, at his own expense, to some other post. Rightly or wrongly, men often get the idea that they cannot "soldier" in a company or that the captain has it in for them. When this spirit exists the man is mighty apt to go wrong, and it is better for all concerned that a change be made. The Government will be at no expense and the soldier, amid new surroundings and associations, may be saved.

Some such system would, it is thought, reduce desertion, and thus the violation of the contract on the part of the soldier.

REMOVAL OF WINE AND BEER FEATURES.

The fourth cause given for the breaking of the contract is the "Removal of Beer and Wine features from the Post Exchange." As the great majority of the officers of the army agree as to the fact that injury has resulted in this removal, there is no necessity for discussion, and the subject is merely given as one of the causes, the remedy for which would be its re-establishment. Incidentally it may be stated that many men who go to grog shops outside of post limits and there get intoxicated on bad whisky would drink beer if the same were sold in the exchanges, and, even should they here become intoxicated, would be taken care of by their comrades. As it is, they lie around half drunk in low dives for days, and at last desert because afraid to return. Again and again do deserters being tried by a general court advance the plea, in extenuation of their offense, that they were drinking when they went away. Many state that they were drugged and

robbed; others state that they were shanghaied. There is no doubt, but should this feature of the exchange be re-established it would have some effect in lessening the evil.

RECRUITING DEPOT.

A fifth cause given for desertion is the "Recruiting Depot." Men are concentrated at these depots after enlistment for instruction and assignment to regiments. Officers and non-commissioned officers are detailed to instruct and look after them. While these officers do their duty conscientiously, it cannot be expected that they will take the same interest in or do the same work with a constantly changing body of raw, awkward recruits they would with their own companies. As a result the recruit suffers, for it is only by constant hard work and interest on the part of the officer that the lot of the enlisted man is made tolerable. Old soldiers at the depots call these recruits "rookies," and they look it. No one would mistake them for a regular soldier. Badly dressed, slouchy, belonging to no particular organization, uncertain of their future, looked down upon by the old soldier, they cannot be said to see the bright side of military life. Many get disgusted and desert. The recruiting depot at Columbus Barracks, Ohio, before the Spanish-American War, was as admirably conducted an institution of its kind as it is possible to develop in our army, and yet this was abolished before that war as unsatisfactory.

It is believed that much better results will be obtained by going back to the system then adopted, of sending men enlisted *direct* from the recruiting station to the organizations for which enlisted (when in this country), where they will be looked out for by their own officers and men, who have a personal interest in their advancement and well being. They will cease to be orphans and belong to a family. As to recruits intended for service outside the limits of the United States a depot is a necessity. One should be established at some central point, and conducted on the lines of the old depot at Columbus Barracks. Officers and men should be detailed from the various arms to drill the recruits of their own arm. Infantrymen drilling cavalrymen, and the reverse, is unsatisfactory, and apt to give poor results. The recruit should be carefully trained for there months and then

sent to his foreign station. No troops should be stationed at these depots to contrast with the "rookie."

COMPANY MESS.

The sixth cause for discontent is the "Company Mess." The ration is abundant, but not varied. The success of the mess depends upon two things; the personal attention given by the company commander, and the location of the company. A perfunctory daily inspection by the former, or a station where the ration cannot be disposed of to an advantage, and supplies cheaply purchased, means a poor mess. The mess of the men should not be dependent upon either of these factors. Some officers, although they work hard for the accomplishment, have not the faculty for handling the ration in such a manner as to enable a company to live well. Others leave the matter, to a great extent, to non-commissioned officers. In either case, nine times out of ten, the mess is poor, and when this occurs there is discontent in the company. It is impossible to furnish an officer with qualities he does not possess, but the Government might easily supply a ration a little more varied than the present, and thus leave less dependent on the officer's ability. In the beef contract a provision might be inserted that pork, mutton or beef, in their various forms, could be called for by the company commander as he desired, instead of as at present, beef only. The proportion is, fresh beef seven days, salt meat three; a better would be, eight fresh and two salt. If, instead of the dried fruit, for which the men do not care, and which is usually traded or wasted, a sufficient amount of canned apples, peaches or pears at the rate of about one can per man a month were issued, it would be advantageous; and an addition to the vegetable ration of one can of corn, tomatoes, beans, or peas, per man, every ten days, as called for by the company commander, would materially vary the bill of fare. Men will stand a good many disagreeable things when the stomach is satisfied. Life seems brighter, and the slight additional expense incurred in the additions suggested would more than be offset by saving to the Government the services of many soldiers who now break their contract and desert, in part, at least, on account of poor food.

There are, of course, many minor causes for the breach of

contract, but as these are exceptional, they need not here be considered.

To sum up briefly then this part of the subject, it may be stated that the "mutual obligation imposed" is that there shall be a careful observance on the part of the Government of all that is implied in the soldier's oath of enlistment, as interpreted by law at that time, and that on the part of the soldier there shall be a faithful observance of the contract for the term of enlistment. That this is not done, and that the contract is constantly violated, it has been the endeavor of this article to show, and while the soldier is distinctly wrong in his act, still there may be running through his head, and heads of many who faithfully serve their three years, the idea that the wrong is not wholly on their part; that they have been inveigled into the service on false pretenses, and that the Government, having the whip hand in the matter of punishment, takes advantage of its power to violate, on its part, its implied obligations. It is a point of view worth considering, and if found to be true, every effort should be made to remove the cause and render equitable, in fact as well as in theory, the contract, by the adoption of some such reforms as those outlined. Certainly they are worth trying if none better are suggested. The success of our present methods, if we are to judge their sufficiency by the annual number of desertions, is not such as to justify us in continuing them indefinitely.

When all is said and done, however, there will continue to be desertions. Some men will desert because there exists no condition under which they would be content; others for a momentary dissatisfaction, a spree with absence for so long a period that the fear of punishment prevents return; and there are many other and momentary causes.

Under our present system there is practically no chance that a man who deserts will escape punishment if he returns to the military jurisdiction. He may have been in service only a day and have been absent for the same period, but let the intent be proven before a court and punishment is mandatory. The moral phase of the crime does not appear to the young soldier any more than to the civilian. It is regarded by him more in the light of a contract which as a military necessity he will be punished for breaking, and it is probable that it is only after he deserts, and realizes that the concealment

of his act is necessary in order to prevent his serving a term of years in prison, that the gravity of his offense becomes clear to him

As already said, many of these desertions are for comparatively trivial causes, and there is little doubt that after they have been away long enough to realize their position many men would gladly return and complete their service were it possible for them to do so. That this is a fact is indicated by the great number of surrenders from desertion, in spite of the knowledge that punishment will follow the return.

In support of this assertion the following statement, one of many similar, made by a soldier tried by a general court martial is quoted. The prisoner, as shown by the positions held, was evidently a sober, reliable man, who would have welcomed an opportunity to redeem himself.

"When I enlisted I enlisted with good intentions of remaining in the service, and of serving to the best of my ability; but after being in the service a short time I formed the acquaintance of a woman, and she persuaded me to leave the regiment. *At the time I did not realize what I was doing and, after being out of the service a short time I began to realize what I had done, and I did not have the nerve to return and give myself up as I should have done.* I returned home to Waycross, Ga., where I was elected constable, in which position I served five (5) years. Then I accepted a position in Philadelphia, Pa., I served a year and a half there. Then my father was paralyzed, and I returned home and stayed there a month, and then accepted a position in New York, where I stayed until I gave myself up to a recruiting officer."

Our system seems irrational. It does no good—that is, does not make one deserter less. On the contrary it does, if the effect is considered in the larger sense, positive harm to the country. When it is remembered that many, probably most of the deserters, are not bad men, that they were decent, law-abiding, self-respecting citizens before entering the army, it would seem that the Government was making a grave mistake in sending them indiscriminately to prison, there, through association and the feeling of degradation engendered, to become recruits for the criminal class. Turned loose upon the country at the end of their confinement they become in many cases waifs and strays, ashamed to go to their homes, lowered morally by the punishment inflicted. Are we preventing

desertion by the system of punishment in force, and are we getting the most possible out of it for the army and for the country? It does not in either case appear so. What then is to be done? That desertion must be punished is admitted, but it would seem that a certain amount of discrimination might be shown in the treatment of deserters. The same cast-iron rule applied to all shows narrowness and lack of resource.

There are two classes of deserters with which we have to deal, those who surrender and those who are apprehended. Without access to figures the statement cannot be made with certainty, but it would appear as if surrenders were nearly as great as the apprehensions. In any case a very large proportion surrender, and this very fact is a proof of what has been stated, that a realization of the moral phase of the crime in many cases comes only after its committal. If any hope of an opportunity to retrieve themselves were given, without doubt many men would gladly return to service, and it seems that some plan with that end in view should be adopted.

A general provision might be made that all men surrendering within six months from date of desertion would be restored to service under conditions.

SURRENDER POSTS.

In each department certain posts should be designated as "surrender posts," and at each of these posts a permanent board of three officers designated to report upon each case. The deserter upon reporting should be attached to some company for *duty*, and as soon as practicable all papers in his case put before the board. If it could be shown that there were extenuating circumstances, and on the favorable report of the board, the man should be required to serve the balance of his enlistment and an additional two months for each month of absence, his allowances, debits and credits being taken up in the condition they were at date of departure. If the board found no extenuating circumstances the man should be compelled to serve an entire enlistment, his allowances to begin anew, his indebtedness to be charged against him. In each case he should be compelled to serve in the arm from which he deserted, and the choice given him to return to his proper organization or be assigned to some other, the travel being at his own expense. *Pardon should be conditional on faithful service*, and a surrender under these conditions allowed

but once. On discharge the man should be given an honorable discharge with the character his final service deserved, the remark being made under the head of remarks: "Absent from so and so to so and so. Returned to duty under the provisions of G. O.———, War Dept., series———."

Many men would return to the colors glad of an opportunity to redeem themselves, and leave the service as a friend thereof, not an enemy; and more than this, many men would have escaped the criminal training now being given and would become decent citizens.

This is suggested as the basis of a plan and could be put into force at once under the pardoning power of the President, the pardon being contingent on the observance of the conditions, or special legislation might be enacted by Congress. The contract, while suspended, would not in this case be broken.

For all other classes of deserters no mercy should be shown. The minimum penalty inflicted should be five years' confinement. Legislation should be sought with a view of making desertion a continuing offense. A central prison, conducted on the lines of the old Leavenworth Military Prison, should be established and the strictest prison discipline enforced, or these men should be distributed among the posts where they would be compelled to do the work, as at Forts Jay and Wayne. The present system does not punish. The sentences are comparatively light, and post-prison discipline not particularly severe. Many men who desert and immediately surrender or are apprehended, as a matter of fact are discharged from service sooner than if they had honestly served their enlistment.

Let us save where we can, but when we punish, "let the punishment fit the crime." Make it severe, and it may serve as a deterrent.

SCARLETT 28.

A WINTER WITH THE RUSSIANS IN MANCHURIA

BY COLONEL VALERY HAVARD, ASS'T SURG.-GEN.

MEDICAL MILITARY ATTACHÉ.



T. PETERSBURG, a city of many palaces and magnificent distances, is not attractive in December. It is the season of snow, fog and murky skies. The sun disappears and may not be seen again for several weeks, while night begins at three o'clock. The general effect upon one's spirits is depressing. Even the finest buildings are defaced and distorted by large blotches of damp adhesive snow looking like cheap stucco. The Neva and the canals are hard frozen, and the stranger feels no desire to visit the many islands which, in summer, dot the delta of the imperial river with smiling parks. A thousand sleighs, driven by stout *izvochtchicks* tightly wrapped in padded overcoats, glide noiselessly on the Nevsky. Policemen stand at all corners, the pivots around which vehicles must turn. At least one man in ten is in uniform, a functionary or bureaucrat, a part of the mighty machinery of the government. No loud talking, no boisterous laughter is heard; the Russian temperament is far from gloomy, but the merry aspect of it is not seen on the street.

In January the weather changes; the skies clear, the sun reappears and the air becomes dry and brisk. Then it is that the *troikas* dash along the "prospects" and the quays of the Neva with great jingling of bells. It is the season of social gaiety, by many said to be the pleasantest month of the year.

Russians seem to require more heat than other people and more clothes. They wear about the same kind of underclothing throughout the year; the changes rendered necessary by difference of temperature are made in the outer garments. Furs are held to be absolutely indispensable in winter in St. Petersburg, although not usually worn in towns of about the same latitude in Sweden and Norway. If this be not a matter of habit, it should be attributed to the penetrating quality of the damp cold of the Russian capital, a cold against which only fur can protect.

There was nothing about the streets of the capital in

December, 1904, to show that Russia was then waging the greatest war of modern times—no display of troops, no martial music; even the war ministry and the office of the chief of staff presented no unwonted animation. Indoors, however, there was conspicuous evidence of the efforts made by the Red Cross Society, an admirable organization, to mitigate the horrors of the distant battle-field. Everywhere, in all public buildings, banks, churches, hotels, restaurants, theatres, &c., were boxes or receptacles of various kinds bearing the symbol of the Geneva Convention and soliciting contribution. All places of amusement were thronged with pleasure seekers, as if the night wanted to atone for the sadness of the day, and the Sunday night ballets, one of the characteristic institutions of the Russian capital, were unusually brilliant. As the Sabbath of the Russian Orthodox Church ends at sunset on Sunday, the opening of all theaters on that night cannot be deemed inconsistent. The "Palace of the People" was crowded with tradesfolk, mechanics and many others who desired cheap and wholesome amusement. A conspicuous feature therein was a large map of Manchuria which showed, from day to-day, by means of colored flags, the exact positions of the Russian and Japanese lines.

I left St. Petersburg on December 28th and arrived at Moscow the following morning. The damp and dusky atmosphere of the Neva had been left behind. The sun shone clear and bright on the old Muscovite capital and its 450 churches, the first sun I had seen since entering Russia. A searching icy wind blew from the north, with intermittent flurries of thin snow sparkling in the air, the same wind that pursued the retreating hosts of Napoleon. To the traveler the Kremlin alone gave unmistakable evidence of the great war in Manchuria by the transformation of its gorgeous halls into immense workshops where 2000 patriotic women labored gratuitously, under the leadership of the Grand Duchess Serge and a staff of the first ladies in the land, making all sorts of winter garments, as well as bandages and other hospital material for the soldiers at the front.

I left Moscow on the evening of the 29th. Two through passenger trains were running each week to Irkutsk; beyond Lake Baikal the passenger service was very irregular, while beyond the town of Manchuria all travel and traffic were entirely under military control.

One travels slowly, but safely and very comfortably in Russia and Siberia; certainly nothing can exceed the ease and conveniences of a *train de luxe* in the Czar's dominions, while the meals served in the dining-car were always excellent.

The road runs through level plains, a rich wheat country then covered with shining snow, dotted with villages and dilapidated windmills; the villages of low, thatch-roofed houses from which now and then rose a church with bulbous, richly-colored domes. Among the passengers were two Americans, the busy and successful agents of large manufactures of agricultural implements in the United States. On the last day of the year we crossed the frozen Volga, longest river in Europe, at Samara. Very picturesque was the view of this city clothed in snow, on the sloping bank of the river, through a bright sunshine.

On January 1, 1905, we crossed the Ural Mountains and entered Siberia. As the Russian calendar is fourteen days behind the Gregorian, this is not New Year's day. The thermometer ranges a few degrees above and below zero Fahrenheit, the air bright and skies perfectly clear. We shall now cross immense plains, level and undulated, and large tracts of wooded hills drained by mighty rivers which run north into the Arctic Ocean. From these plains came most of the beef consumed by the armies in Manchuria.

Officers formed the great majority of passengers on our train; tall, handsome, as well as talkative and jovial gentlemen who did not permit the events of the war and the hazards to which they would soon be exposed to prey on their minds. Near Cheliabinsk, while at luncheon, a poor excited *moujik* burst into the dining-car and, kneeling down, with loud unsteady voice and fierce gestures, seemed to beg or threaten. I thought he had been drinking and would incontinently be thrown out; but to my amazement everybody gave him money. It appears that his horse had died of exhaustion and that he and his family were left helpless on the road; he wanted enough money to buy another horse and apparently got it. On the 4th we reached Zaiga, the junction for the city of Tomsk. Several officers stopped there to purchase horses for the cavalry. Here we received the news of the fall of Port Arthur, a rather unexpected and therefore the more shocking news. A pall fell upon all; but it is not in the Slav temperament to be long down-cast, and, besides, Christmas was approaching, being celebrated

by the Russian Church on January 7th of our calendar. Therefore on the 6th a small fir-tree was set up in the dining-car and decked with candles, toys and bonbons. There were no children on the train, but everybody becomes a child at Christmas-tide, with fond memories of home and kindred, and all united in the celebration, with song and wine.

Christmas day found us at Irkutsk; a perfect day with bright sun, sparkling air and the temperature at about zero F. The view of the many domed city, clear cut against the sky from the station across the river, was indeed beautiful. The Angora—outlet of Lake Baikal—is a large rapid stream which seldom freezes, and so limpid that the shells on the bottom, several fathoms deep, are distinctly seen. We crossed it on a rope ferry propelled by the current itself, the pontoon bridge having been taken up for the winter. This being a holiday the hotel was closed, but after some persuasion we were admitted and given dinner in our rooms. Irkutsk, one of the most remote of Siberian towns, and now the most important, was founded in 1652. It has some handsome churches and fine public buildings, but its dirt streets must be quagmires in the rainy season.

Lake Baikal, framed in high picturesque hills and snow-clad peaks, is worthy of its fame. It was covered in places with a thin film of ice, but most of it was still open and navigation in no way interfered with. The railroad had been completed along the south shore and most of the troop trains continued their journey without change. These trains consisted chiefly of freight cars, each car marked for forty men or eight horses, but seldom containing more than thirty men, accommodated on platforms around the sides, leaving an open space in the center for the stove. The two big ferryboats, *Baikal* and *Angora*, were also plying between Baikal station and Tankoe on the east shore. A large impatient crowd was constantly waiting to cross on the boats. A motley crowd—officers, soldiers, functionaries, employes, merchants, emigrants, Russians, Tartars, Chinamen and Jews; most of them with piles of boxes, bundles and packages and the indispensable teapot. As there was always some doubt about finding room on the boat the unprivileged majority stood expectant, pressing forward as near the ferry slip as permitted, sometimes for many weary hours, ready to rush aboard when the signal was given. Here I parted from the officers who had been such

pleasant and courteous traveling companions. I crossed the lake on the *Angora* and continued my journey to Harbin with my friend, Mr. A. C., whose acquaintance I had made a few days before.

Mr. A. C., as type of a certain class of successful modern Russian business men, deserves a few words. He was a gentleman of wide knowledge and experience, speaking perfect French and German, desiring reforms in his country, but not revolution. In his younger days he had been a railroad official, one of the most trusted subalterns of De Witte, then Minister of Communications; but not finding sufficient scope for his ambition in the bureaucracy, he started out in business and soon evinced a remarkable genius as creator and promoter of various industries. After being frozen out in Warsaw and Moscow by stockholders whom he had enriched, he succeeded in borrowing more money, and with the help of the Russo-Chinese bank, established a flour mill and a *vodka* distillery in Harbin a year or two before the war began. When I met him, he had already paid back every cent of borrowed money, and, later, in Harbin, informed me that he was netting over \$1,000 a day. This revenue came chiefly, I suspect, from the distillery. As the Russian government has the monopoly of vodka manufacture, he located his plant just across the boundary line, in Chinese territory, where his only taxes were an occasional bribe to the local mandarin, while his Russian citizenship protected him against exactions. But not yet satisfied, he had just perfected plans for a large candle manufacture so as to utilize the fat of the countless cattle dying and killed on the Amur and its tributaries, raw material which, until now, had been entirely wasted. However, mindful of the fickleness of fortune and of the obligation of parents to give their children means of earning a livelihood, he sent his two daughters—graduates of a Swiss college—abroad, one to London to study dressmaking and the other to Holland to learn the management of a poultry yard and the making of butter and cheese.

After the usual delays and a night spent dozing at the station on our hand baggage, the train pulled out from Tankoe late in the forenoon of the 9th. The air was dry and crisp and the frosty twigs sparkled in the sun. Vistas of the lake and hills beyond opened up here and there through the woods of pine and birch. We passed several villages of Buryats,

nomadic indigenous tribe dwelling in round felt tents, and beheld the strange and unexpected sight of camels drawing sleighs on the snow. Much of the country is now more or less hilly and often wooded, the white birch predominating. This is the popular tree of northern Russia and Siberia, dear to the heart of the native who, when traveling far away from home, is liable to suffer from what a Russian colonel, a traveling acquaintance, called the nostalgia of the birch.

At all stations on the Trans-Siberian Railway are substantial structures, including monumental water tanks, often with considerable ornamentation and affording much comfort to the traveler. At the principal ones are commodious houses for officials and employes, as well as excellent restaurants where the stranger becomes acquainted with savory national dishes, especially *tchi*, a very palatable soup of which meat and sauerkraut are the principal ingredients. Boiling water is always on hand for anyone wishing to make his own tea.

At Manchuria, on the border of the Chinese province of that name, begins the Chinese Eastern Railway. Here a strict inspection was made of passengers and merchandise, and nothing allowed to pass without special official sanction. As we proceed eastward I am disappointed to find that the old Chinese towns whose names are borne by the stations are miles away and therefore invisible; but new towns with a strong Russian element are growing along the line. Round about the stations are crowds of busy and alert Chinamen driving carts, balancing loads on their shoulders, peddling eatables or otherwise attending to business, with much talking and gesticulating. A fine race are these Manchus; tall, well-proportioned, with regular features and intelligent expression. After subduing the Ming dynasty they adopted the pigtail from the conquered race, but their women were too sensible to subject themselves to the tortures of their Chinese sisters for the sake of a small, but misshapen and useless foot.

Signs of the war are now becoming more evident. We are often sidetracked to make way for trains going east loaded with troops, artillery and camp equipage, or going west loaded with sick and wounded soldiers. The stations, about ten versts ($6\frac{2}{3}$ miles) apart, are all garrisoned and fortified; each bridge is guarded as before by a squad of soldiers, but, besides, protected by defensive works. Large piles of hay, grain, beans and wood are frequently seen.

After passing the Khingan Mountains by a series of loops and through a tunnel over two miles long, we descend upon the fertile basin of the Nonni, a rich wheat country, and then traverse immense level prairies, much like those of Minnesota, affording excellent pasturage to herds of cattle from which the Russian armies are partly subsisted.

The Sungari River, where crossed by the railway and spanned by a fine iron bridge upon stone piers, is about 500 yards wide. It was hard frozen and covered with drifted snow forming a sinuous white line on the level country. I arrived at Harbin on January 18th, having performed a journey of 5215 miles from St. Petersburg in twenty-one days, or at the rate of ten miles an hour. It may also be stated, to the credit of the railroad management, that in spite of many transfers all my baggage checked in Moscow arrived the same day in excellent condition.

Harbin consists of three boroughs: the port town, next to the Sungari River, largest and most important; the new town, official and bureaucratic; the old town, further east and south, first settlement. Its population is estimated at 60,000, at least one-half being Chinese. Its anomalous government is of a dual character, the Chinese authorities retaining a show of suzerainty by the presence of a military governor and garrison and the patrolling of some streets by good-natured native policemen. It possesses a large number of fine stone buildings, most of them erected by the Russian government and the railroad company for officials and employes, including a monumental railway station and immense machine shops, and was in process of a wonderful development when the war broke out. A hotel just completed, but for the time transformed into a hospital, is equipped with all modern improvements and luxuries and has nothing to equal it east of Moscow and north of Peking. Many of the buildings have much architectural merit, often with pretty and quaint Chinese features, such as curved tile roofs with guardian dragons on ridges and angles. Here, as at Dalny, the architects have aimed at variety in unity, a great diversity of styles without marring the harmony of the whole, but on the contrary, with excellent general effect. On the highest point stands a conspicuous but small chapel of the usual Byzantine type. Harbin has not yet a church worthy of itself.

All available buildings, especially the many barracks and

vast machine shops just completed, had been converted into hospitals with capacity for 30,000 beds; 24,000 under the direction of the army medical department and 6000 under that of the Red Cross. Up to the Battle of Mukden this capacity had never been severely taxed, nor were the patients allowed to stay long, being evacuated further westward as soon as able to travel. The number and location of base hospitals certainly reflect great credit upon the authorities, being judiciously scattered along the entire railroad line from Irkutsk to Vladivostock and from Khabarovsk to Mukden, so that, with the necessary exception of Harbin, there was no great concentration of the sick and wounded at any one place, a disposition which doubtless greatly contributed to prevent the spread of epidemic diseases. It should also be stated that the system of evacuation, by numerous specially equipped sanitary trains, permitted the transportation of thousands of patients long distances in safety and comparative comfort.

I left Harbin for Mukden February 3d, on a sanitary train. This train had quite a record. It first arrived at Harbin in August, 1904, and up to February, 1905, had transported 4600 sick and wounded to Irkutsk, making ten trips from Liao Yang and Mukden and one from Nikolsk.

Central Manchuria is a rich agricultural country dotted with mud villages and every foot of the soil under cultivation. This explains the facility with which the Russian Army was supplied with food for man and beast. There were seven large steam flour mills in Harbin in active operation during the war, and they did not consume all the available grain. The traveler notices clusters of little mounds, conical tumuli about the height of a man, here and there over the level fields. They are tombstones, family burial grounds, sacred spots, originally in umbrageous groves, but most of them now despoiled of their sheltering trees by the rude hand of war.

On my arrival at Mukden on the 8th, I found most of the military attachés occupying compartments in a special train near the railway station, and there I was likewise assigned; later, I joined the American attachés who, with others, lived in a large compound just outside the southeast corner of the walls of the city. After paying my respects to the commander-in-chief and others in high authority, and being duly accredited, every courtesy was extended to me and every reasonable facility given in the pursuit of my investigations.

The old Manchu capital is a reduced copy of Peking. Particular objects of interest were its massive stone walls, with monumental gates guarded by motley crews of Chinese soldiers as well as Russian sentries; the imposing square towers at the intersection of the principal streets; the imperial palace, a magnificent ruin; the many Buddhist temples, pagodas and cloisters; but, above all, and one of the wonders of China, the famed imperial tombs, three or four miles north of the city, a marvel of intricate ornamentation, elaborate carving and vivid coloring. Also sadly interesting were the ruins of the large Gothic Catholic cathedral, where in 1900 perished—burned to death by the Boxers aided by Chinese soldiers—a bishop, two missionaries and about 250 native Christians.

Mukden was abundantly stocked with all kinds of supplies, necessities and luxuries, not only from the north, but also largely from the south by the Tientsin and Kinchow Railway which extends to Sinmintun, within thirty miles of it. The streets were congested with vehicles of many sorts, horsemen, soldiers and natives; never had the old city seen so much traffic within its walls and so much gold flow into its coffers, for the Russians had plenty of the sinews of war and paid generously for everything. It was matter for congratulation that the dirt streets remained permanently frozen during the winter, and as good as granite pavement; the result of a thaw would have been frightful to contemplate. To what extent the Mukdenites regretted the departure of the Russians it is difficult to say. There must have been heart strains between self-interest on the one hand and racial affinity on the other; certain it is that hardly had the hosts of Kuropatkin begun their retreat when every house was decorated with Japanese flags and welcomed the enemy.

In company with my colleague, the French medical attaché, I spent several days at Kwan Shan, headquarters of General Linevitch, about sixteen miles south of Mukden. The veteran general, then over seventy years old, had still a bright eye and a quick step, and seemed indefatigable. He did us the honor of an invitation to breakfast, but on the appointed day an urgent message from General Kuropatkin called him to the grand headquarters, and on the following day, to which our invitation had been postponed, alarming news from the left wing compelled him to proceed thither without delay; the enemy allowed us no other opportunity.

While at Kwan Shan one of our favorite walks was to the top of a hill dominating the village, and upon which stood a fine pagoda whose walls were decorated with vividly colored images of criminals undergoing all forms of atrocious tortures. From this hill was spread before us a large part of the valley of the Sha Ho, where at almost any time could be seen the white puffs of shrapnels or the black smoke of shimose. Specially conspicuous was Butiloff Hill, the only post held by the Russians south of the river and the special objective point of Japanese attacks. More than once it appeared literally covered with bursting shells, but its defenders were not dismayed and could not be dislodged; the hill was turned but never captured.

From Kwan Shan we made excursions to field-hospitals and dressing-stations. The field-hospitals, established in Chinese villages, had been stationary for some time and able to accumulate sufficient equipment and supplies to give patients all the comforts one could reasonably expect under the circumstances. At one of the Red Cross dressing-stations, within sight of the enemy, we were courteously received by the directrix, Countess Ignatieff, distinguished daughter of the great diplomatist. As we sat down to a glass of tea a fire broke out in the adjoining room, and within a few moments several thatch roofs were in a blaze and much property lost. We left without having tasted our tea, but full of admiration for the heroic courage and devotion of the countess and her companions.

On account of the flanking movements of the Japanese we returned to Mukden March 2d, and thereafter were enabled to see several engagements at close range, as well as the stream of wounded pouring into the hospitals. March 7th was a beautiful sunny day, mild and bright; the fighting was quite brisk a few miles west of the railway station. Perched on the ridge of a Chinese house we had a fine panoramic view of the battle-field, the steady advance of the Russian line against the invisible enemy, and its capture of the nearest village. The next day the battle had extended due north of the city, a few miles beyond and to the east of the imperial tombs. It became obvious that although the Russians seemed quite able to maintain their positions their line of retreat was getting gradually closed.

The railway station was two or three miles west of the walls of the city, and round about it were a number of barracks,

offices, stores and official residences. There, as elsewhere, the barracks had been converted into hospitals. Doubtless it did not occur to the architect who erected these spacious and well-lighted stone and brick structures for the housing of soldiers, that their first and only use by the Russians would be for the accommodation of the sick and wounded of the greatest of modern wars. Here were many of Russia's most skilled and distinguished surgeons, whose labors never ceased, and a band of "sisters" or female nurses, many of them trained in the numerous special establishments of the Red Cross, but also many volunteers from all classes of society, who made up in zeal and self-denial what they lacked in experience. Not only were these sisters at base hospitals, but they also formed an essential part of the personnel of field-hospitals and sometimes were even found near the front, at dressing-stations. All honor to the Russian Red Cross sister! For natural aptitude, endurance of hardships, contempt of danger and single-hearted consecration to her humane task, she is unexcelled if not peerless.

In order the better to appreciate the conditions under which the Russo-Japanese War was waged, a few words about the climate of Manchuria may not be out of place.

Manchuria extends from the River Amur, on the 53° lat., to Port Arthur on about the 38°; that is to say, if placed in North America, over the same latitudes, it would extend from Hudson Bay to Richmond, Va. or Louisville, Ky. Harbin is about in the center of it. It is free from endemic or prevalent disease of any kind and may be considered one of the healthiest countries in the world. Its climate, like that of our Middle-Northern States and other continental countries, is characterized by extremes of heat and cold, with sudden transition from winter to summer, and moderate rainfall. Freezing weather begins in November. The coldest months are December, January and February, the minimum ranging from -25° to -30° Far. at Harbin, -15 to -20 at Mukden and -5 to -10 at Port Arthur. June, July and August are the hottest months. At Harbin the maximum temperature ranges from 90° to 95° Far.; at Mukden and Port Arthur from 95° to 100°. Thawing takes place in April, often producing deep mud. Then there is an interval of dry weather until the beginning of the heavy rains in June.

If we compare the climate of Manchuria with that of our

interior States within the same latitudes we find that it is much colder. Thus Mukden, although on the latitude of Providence, Cleveland and Omaha, has the mean annual temperature of Portland, Me., Kingston and St. Paul. Port Arthur, although on the parallel of Richmond and Louisville, has the mean annual temperature of Boston, Hartford and Cleveland. In round numbers, it may be stated that the isothermal of any parallel in Middle and Southern Manchuria would run at least three degrees of latitude further north in our Atlantic and Middle States, and six or more degrees in our Pacific States.

The average precipitation (rain or snow) at Mukden is thirty-three inches (mean of seven years), somewhat more than at Harbin and more than twice as much as at Port Arthur. The southern end of the Peninsula is therefore very dry and barren. This precipitation occurs mostly from May to October (27.43 inches), the period from November to April being practically rainless and almost snowless.

The winter, then, can be characterized as being very cold and very dry; a persistent, relentless cold, with a brightness of atmosphere which, on calm days, makes perfect winter weather. Rivers are frozen solid until April, and as there is seldom any snow upon the ground, travel and transportation in wheeled vehicles are made easy. Unfortunately, strong winds are common, raising thick clouds of dust along the roads and in the vicinity of towns.

The winter dust of Manchuria is an unpleasant surprise and exceedingly trying. In St. Petersburg I was advised to provide myself with snow-glasses, but nobody suggested dust-glasses which would have been more to the purpose. The Japanese soldiers were provided with them and also with a piece of gauze to protect nose and mouth. When I first saw and tasted the powdery air in which the people of Mukden are fated to live during much of the dry season, I pitied their lot and realized that, for them, the traditional peck was not nearly an adequate measure; but after a while I made the amazing discovery that the smell and taste of dust had ceased to be disagreeable, that our bodily economy could accommodate itself, become immune as it were, even to that pestilence. The eye, in the absence of suitable glasses, was the only organ that continued to rebel and suffer.

On March 9th a dust storm raged during most of the day, favoring the retreat of the Russians. With one of my colleagues

I rode to the railway station in quest of news. On the large open square near it we were swallowed up in a cloud of thick dust, and for a few moments entirely lost to each other. Later, we made our way to the buffet of the station which we found crowded with officers drinking tea and eating a frugal luncheon; little did they seem to expect the sudden and complete evacuation that was to take place during the night. Outside, between whirls of dust, could be seen several trains loading and unloading; certainly there was no indication that, in the early morning of the next day, the station and all surrounding buildings would be a mass of burning ruins. Nor did my companion or myself suspect that, before another day had passed, we would be visited in our compound by a Japanese officer and enjoined to remain indoors until further orders, thus bringing our mission to an abrupt termination.



THE RÔLE OF CAVALRY IN MODERN WAR

BY LIEUT.-GEN. VON PELET-NARBONNE, RETIRED

TRANSLATED FOR THE SECOND DIVISION, GENERAL STAFF, U. S. A.,

BY CAPTAIN CECIL STEWART, FOURTH CAVALRY.*

(Die Zeit.)



IN military circles lively interest is taken in the query whether the Russo-Japanese War will furnish special instruction on the employment of cavalry. It seems that an affirmative answer to this question may be all the more expected since Russia has on the theater of war an enormous numerical superiority in cavalry, and since the Russians may be considered as a nation of horsemen, while the Japanese are unsuited, from a physical standpoint, for mounted service, and as their cavalry is considered of inferior quality compared to their artillery and infantry. But, strange to relate, it happens that Russia does not fittingly profit by her numerical superiority in cavalry, for outside of a brigade of dragoons there are in the theater of war only Cossacks, who do not form part of the regular cavalry, and who in any case cannot be considered as cavalry of the battlefield. So nothing has been learned concerning any efficient intervention by the cavalry, in the battles given up to date. The broken and rocky nature of the region occupied by the opposing armies is, moreover, unfavorable for using masses of cavalry, and probably prevents attacks with the *arme blanche* by strong units of this arm. Toward the middle of May the Russians did make, with their Cossacks, an attempt against the Japanese lines of communication in Korea; but undertaken with insufficient force this attempt, while giving some appreciable results, was not able to influence in a decisive way the progress of operations. Since then the Russian cavalry has been reinforced, and it remains to be seen if it will not find the opportunity to show to better advantage, when, as events seem to indicate, operations will be developed to the north of Mukden, that is in a less broken region.

In view of this contingency it appears of interest, from a

*From *Internationale Revue*, February, 1905 (Dresden).

general point of view, to inquire into what may be expected from cavalry in a modern war.

It is clear that in the face of the extraordinary improvement of firearms cavalry can no longer think of obtaining by mounted combat what it obtained a hundred years ago in its attacks upon the other arms. The days of Hohenfriedberg and Rossbach, where hundreds of victorious squadrons overran the battle-field scattering numerous battalions and gaining possession of many guns, have passed forever. The hail of bullets that falls upon the attacking cavalry to-day renders such successes a substantial impossibility. But the new conditions that rule the conduct of armies have considerably broadened the rôle of cavalry in other respects, without it becoming necessary for that arm entirely to give up co-operating in a manner decisive for success on the field of battle, as we shall see further on.

The new rôle, or rather the broadened rôle of which we wish to speak, is the service of exploration in advance of the army's front. At the time of Frederick, the importance of this rôle was less, because the armies of that epoch, much less in number, camped and marched always in dense formation in proximity to the enemy, and because before battle the hostile generals were able to make a personal reconnaissance. Further, spying* then played a considerable part. Exploration on a large scale, that is to say, strategical exploration such as is to-day practiced by great cavalry masses, was a thing unknown. But in the Napoleonic era, when armies became of greater numbers, the rôle of the service of exploration grew in measure as the number of combatants increased, without, however, obtaining the importance that this service presents to-day in European wars, between armies composed of millions of men. It is clear, in fine, that the greater the number of combatants the more difficult it is to bring together, at a precise time and a fixed place with a view to united action, the various masses of from 30,000 to 60,000 men, that in columns of from one to two days' march, in depth, are moving on different routes. Every modification to be made in the direction of march of this gigantic whole, with its lines of communication that must be protected and the measures to be taken to insure

*In no preceding war has spying played so important a part as in the present war on the Japanese side, where clouds of Chinese spies precede the armies and advantageously replace, as to service of information, the Japanese cavalry, of a quality quite inferior. This situation is absolutely abnormal and will not be repeated on any European theater of war.

its supplies, in brief this ensemble of conditions that impedes rapid execution of the determinations of the supreme authorities, all this demands considerable time, which may not be found unless the cavalry, pushed several days' march to the front, supplies the information desired as to the adversary's movements. Formerly the commander-in-chief could make the reconnaissances himself, but to-day it is the cavalry that becomes the "commanding general's eye."

The rôle of the cavalry, of great import although little apparent and often even silently passed over in accounts of wars, begins from the deployment or strategical concentration, which the cavalry should protect from hostile view and undertakings, though striving to study this operation on the enemy's part, and to thwart it by operations directed against the enemy's lines of communication and particularly against railroads. These means of communication, so ticklish and so easy to destroy, constitute to-day an exceedingly important element of war, as is shown by the Trans-Siberian road, and their destruction and protection has created new and important tasks for cavalry. It is not necessary to demonstrate, I think, that the destruction of an important track, that by carrying provisions, ammunition, reserves, etc., enables the army to live and to fight, and becomes then, in a way, the umbilical cord of this army, that the destruction of this track, we say, might cause the loss of an entire campaign, even though interruption of traffic last but a few days. Now no arm is better able than the cavalry to direct against these means of communication useful enterprises, for this arm appears suddenly and disappears likewise. But for this it must be available in great numbers, in order that the main body of the army be not deprived of its cavalry of exploration on account of the numerous detachments that the latter must send out, and that often do not return for several days and with effectives greatly reduced, principally consequent upon loss of horses due to the exertions put forth. During the American War of Secession the Southern States, above all at the time Stuart was in command, frequently used their cavalry for the like end. These expeditions, called raids, gave the best results, but they resulted also in the main army meanwhile lacking cavalry. In the present war in Manchuria the Japanese have too little cavalry to dispose of to be able to attempt, with masses of this arm, an enterprise against the Tran

berian, although they certainly do not lack the desire. For want of better means they have tried to accomplish this task through bands of Chungchuses, but the attempts of these brigands have been foiled, thanks to the vigilance of the Russian cavalry.

The manner in which cavalry was used in the course of the War of Secession merits all the attention that for some time has been directed anew thereto. Therein we see armies formed at the beginning of the war only, and these armies, deprived of the advantages, but also freed from the fetters that antiquated traditions at times impose, constitute and use their bodies of cavalry according as the particular circumstances of time and place require and permit. The Southern States furnished accomplished horsemen, and who at the same time were unrivaled shots. Riding superb, hardy horses, these troopers could be quickly formed into bodies of cavalry that, improvised as they were, evidently lacked training as cavalry for the battle-field, but that in return presented other qualities due to personnel and horses, and which could not be found in like proportion in any European cavalry. In the Northern States, on the other hand, everything was wanting for forming an available cavalry. The regiments created and fully armed were not in condition during the course of the first years of the war to hold their own with the cavalry of the Southern States; the latter remained absolute master of the theater of war, and contributed hugely to the successes of General Lee, commander-in-chief of the Southern forces. It was only later on in the course of the war that the Northern States succeeded in creating an approximately suitable cavalry, by specially recruiting this arm in the Western country. Now in this war the cavalry of the Southern States fought as well on foot as on horseback, and in the numerous battles fought in those thickly wooded regions these troops made more frequent use of carbine than of saber, and in spite of that they were not at all mounted infantry, but indeed cavalry in the true sense of the word, and they delivered many a formidable attack, saber in hand. Thanks to this quality of an arm that could be employed in two ways, and provided with excellent horse artillery it was able to execute its celebrated raids upon the enemy's rear and its brilliant explorations, without giving up playing its rôle in battle.

When the wars of 1866 and 1870 broke out in Europe the

lessons that it embodied had not yet been drawn from the War of Secession, either because the events of that campaign were not yet sufficiently known in detail, or because in European armies they boasted of a superiority unjustified relatively to the American armies. In 1866 neither the Prussian nor the Austrian cavalry played a part in keeping with their strength or intrinsic valor, because their equipment, their training and their method of action looked almost exclusively to their employment as battle-field cavalry, and the carbine was considered as an accessory affair. In the course of the campaign of 1870, the German cavalry produced weighty results in exploration service, and at Vionville it has proved that it was able to achieve some success against other arms also from the time that it was known how to employ it. But in the course of operations against the armies of the Republic the services it rendered in exploration were often inadequate, because its defective armament and its incomplete training for fighting on foot did not allow of its always overcoming resistance opposed to it by armed bands. On battle-fields it was rarely put into action, since leaders who would have been able to manage great masses of cavalry were completely wanting: none had been formed.

After the war the defects that existed were perfectly recognized, and there has been endeavor to better prepare the cavalry for war by giving it a suitable firearm, by drilling it in fighting on foot, in exploration in great masses and in action on the battle-field, then finally by forming chiefs capable of leading it.

In Russia, also, they have striven to realize these reforms by giving the cavalry a firearm equivalent to that of the infantry, and in drilling it at fighting on foot. But following the continual improvement made in firearms, the idea spread in the Russian cavalry, that against infantry thus armed there was no longer anything to hope from the cavalry charge, and that success could no longer be obtained except by fire. The consequence was the disappearance of the cavalry spirit, of the swagger, the boldness of this arm, and so it is that in the course of the war against the Turks, in 1877-78, one sees that the Russian cavalry lacked nearly always spirit of enterprise, and that rarely it attacked mounted, limiting itself to furnishing, most often, a dull fire action.

There is little to be said about the Boer War. They possessed no cavalry, and that of the English was in no respect

prepared for a campaign, especially under conditions such as were presented in South Africa. It was only at the end of the war that it obtained results, when Lord Roberts was directing operations and there was French to lead it and employ it unsparingly. Without wishing to offend any cavalry or any leader whatever, we shall say that before all, cavalry must be cured of its "horror of blood," if it is wished to obtain results, for, to use a popular saying, one cannot make omelettes without breaking eggs, or rather, nothing risked, nothing gained. This "horror of blood" proceeds in great part from the eternal harping on "this arm so expensive, so hard to replace, and that must be consequently handled with care." This theory is true up to a certain point, chiefly when it is a question of avoiding useless or exaggerated hardships that ruin horses; but those who would make of this theory a dogma to follow on the field of battle, also, are completely mistaken. Cavalry should learn to bear losses that infantry undergoes without worrying much about it. "It is too costly an arm not to give returns," said gallant Gen. K. von Schmidt, changing slightly the above doctrine.

Let us now see whether, in spite of the armament, always more efficient, of modern armies, cavalry is yet able to interpose with the *arme blanche* in the course of battle. To this question we answer with a categorical Yes. Certainly against unshaken infantry, even deployed as skirmishers, cavalry making a frontal attack could gain nothing from the instant that this infantry fires with composure, and attack by surprise is rendered difficult by the long range of modern arms that obliges cavalry to keep far to the rear before attacking, unless, by way of exception, cover exists near the line of battle. On the other hand, its interposition is favored by the long lines of skirmishers that the infantry adopts for fighting, and that are very weak on the wings; then the extraordinary efficacy of modern firearms is the cause of considerable losses being produced often in a sudden way, which breaks down the morale of troops and easily produces panics. Troops that in the course of a three or four hours' struggle undergo a loss of 20 per cent. of their strength will bear this loss without their morale thereby suffering. But if these losses are produced in a few minutes, as may well happen at present in an attack against a well-defended position, these troops will be "ripe for the charge," for their infantry will then be in the state that Fritz Hönig—who was in

the ranks of the Thirty-eighth Infantry Brigade when it flowed back, the 16th of August, 1870, after the unfortunate attack on Vionville—characterizes as follows: "At that moment, it is a matter of absolute indifference whether this human flock be armed with repeating rifle, flintlock or dung fork." Situations of this nature will be more frequently presented in future wars than formerly; all that is needed is that the cavalry know how to put them to profit.

Because of the great effectiveness of shrapnel, artillery, from the time it is in battery, is able by itself to repulse any cavalry attack directed against its front. Against flank attacks it is almost helpless, and its oblique fire is not very effective; attacked in reverse or on the march it is defenseless.

In pursuit, cavalry is always the arm par excellence on condition, of course, that it be provided with a good carbine and that it knows how to use it. Then it can appear suddenly on the flank of hostile columns that, overthrown physically and morally, drag painfully along, and deluge them with projectiles or charge them with the *arme blanche*, or yet again combine the two means of action. Thanks to its mobility, it can disappear when resistance becomes energetic, and begin again the same fire in another place, constantly harassing the exhausted adversary and retarding his march, in order to wear out his power of resistance and to provoke panic.

To sum up, cavalry is of chief importance for service of exploration and for operations undertaken against the enemy's lines of communication, as well as in pursuit; this importance has but grown greater in the last few decades. It has lost some of its importance on the battle-field, without, however, having to give up co-operating in the engagement.

But for cavalry to retain its importance under present circumstances it should adopt equipment, armament and training conformable to the new conditions of war. It should consequently adopt a firearm of the best model and be expert in fire action. Beginning with times of peace, it should be grouped in large units, that is into cavalry divisions, and these should be drilled in the service of exploration as well as in fighting in mass on the battle-field, so that these divisions form tactical units that may be able to contend in independent fashion with the three arms, to cross water courses, to prepare fortified positions. It is therefore necessary to attach to cavalry divisions, besides horse artillery, mounted pioneers, bridge material, and if possi-

ble, machine guns. Organized in this sort, cavalry divisions will be able to play a part in battle, even though attack with the *arme blanche* be impossible.

But what is of supreme import, is that this arm be endowed with true leaders. If deceived in the choice of these, if they have not the spirit of enterprise, the necessary boldness, the best instructed and the best organized cavalry can not obtain results. More than in any other arm, success depends for cavalry on the personality of leaders.



THE SWISS MILITARY ORGANIZATION

BY CAPTAIN T. BENTLEY MOTT, ARTILLERY CORPS.



IN three days' time, the Swiss Republic can mobilize a first line of 200,000 perfectly equipped fighting men, most of whom are fair shots, and all of whom are accustomed to shooting the army rifle. Behind this first line a reserve army of 300,000 men, part of whom have served their time in the active army, and 50,000 of whom are always armed, can be formed in whole or in part as necessity demands. Switzerland has about three and one-half million inhabitants; the military establishment costs yearly about five and one-half million dollars.

How are these extraordinary results accomplished?

In order to answer this question the present paper will begin with an outline of the military organization, give a rapid sketch of the military career of the average Swiss citizen and describe in some detail the Swiss shooting clubs and the army target-practice system; finally, the salient points of special interest to us will be touched upon, while the appendix will furnish detailed information and statistics on all these subjects.

The strength of the field army, first line, immediately ready for war, is about 200,000 men. There are, besides, 14,000 men assigned to the fortifications.

This force is divided into four army corps, each one of which is organized as follows:

Infantry: Two divisions; four brigades; eight regiments; twenty-four battalions; one mounted machine-gun company; two battalions of carbineers (picked troops); one brigade of Landwehr or first reserves.

Cavalry: One brigade; two regiments; six squadrons, forming corps cavalry; two and one-half companies of guides, one company attached to each infantry division, one-half company to corps headquarters. (This leaves two companies of guides for escort of army headquarters.)

Artillery: Three regiments; six groups or battalions; eighteen batteries, seventy-two guns, of which one regiment to each infantry division as divisional artillery and one regiment as corps artillery.

Engineers: One bridge train and one telegraph company as corps engineers; one battalion engineers divided between the two divisions.

Medical: One corps hospital two division hospitals; ten field-

hospitals. Also, one ammunition column, six companies; one subsistence detachment and two companies of army-service corps.

Strength: Officers, 1123; men, 24,544. Total, 25,667.

Saddle-horses, 1755; draft horses, 3106; carriages, 916.*

Every Swiss citizen between the ages of seventeen and fifty is liable to military service if required.

The élite or active army is composed of all men who pass the physical and mental examinations and are received as recruits. It is considered a misfortune to be rejected. About fifty per cent. of the men examined are accepted. Men serve in the élite twelve years (cavalry, ten); when thirty-three years old they pass to the Landwehr; when forty-five to the Landsturm. The last class also comprises for emergencies all men not otherwise enrolled between the ages of seventeen and fifty.

The troops consist of infantry, cavalry, artillery, engineers, sanitary and administration troops.

A battalion of infantry consists of twenty-five officers and 732 men, 672 muskets, two two-horse ammunition carts and eight two-horse baggage wagons.

A squadron of cavalry consists of four officers and 119 men, 105 carbines, two baggage wagons, one forge and cook wagon combined, 123 saddle-horses.

A battery of field-artillery consists of five or six officers, 138 men, twenty-one or twenty-two saddle-horses, 106 draft horses, (six extra), eighteen carriages in all; four guns, ten caissons, battery wagon, forge, two supply wagons.

A company of siege artillery consists of seven officers and 162 men.

A company of engineers (sappers) consists of four officers and 185 men; (pontoniers) of four officers and 119 men; (railway pioneers), of three officers and seventy-seven men.

A corps hospital consists of thirty-five officers, 221 men, 148 horses; a division hospital, twenty-three officers, 124 men and forty horses; a field hospital for 200 sick, seven officers and thirty men.

The administrative troops of an army corps consist of thirty-three officers, 361 men, forty-seven saddle-horses, ninety-six wagons, 372 draft horses.

There is also a battalion of bicycle troops, unattached in time of peace.

The Federal Congress is the law-making body; the Federal

*These figures are slightly altered by the new artillery organization.

Council elected by it is the executive authority. One of the members of this council is the head of what the Swiss call "the Military Department"; in other words, he is Secretary of War.

The Federal Council appoints the following officials from among officers of the army:

A chief of infantry, a chief of cavalry, a chief of artillery, a chief of engineers, a chief of the general staff, two chiefs of supply (1) of ordnance (2) of food, clothing wagons, etc., a chief surgeon, a chief veterinary, a chief paymaster and auditor, a judge advocate-general, a director of powder manufactures (civil and military. State monopoly), a bureau of permanent fortifications, a director of the state horse establishment.

MILITARY AUTHORITIES OF EACH CANTON.

Each canton, corresponding to our state, has a military department, which has certain well-defined functions ascribed to it by, and subject to the control of, the central authority.

The cantonal military department assures the regional *recrutement*, appoints certain subaltern officers (of infantry chiefly), issues the call to arms, assures the clothing and equipment of troops in its territory, furnishes horses and collects the military tax.

EDUCATION OF THE SOLDIER.

In Switzerland universal education to the age of fifteen is compulsory, and during this period simple gymnastic exercises, under the direction of the schoolmaster, are required of all pupils as a preparation for military service. The schoolmasters are prepared for this instruction in normal schools.

But apart from this obligatory work there exist more or less everywhere what are called cadet corps, voluntary organizations composed of boys from eleven to sixteen years, in which setting up and marching drills, and some exercises in the manual of arms are given. Each corps adopts its own simple and inexpensive uniform, generally the same in each locality, and the state furnishes a light cadet musket and ammunition for target-practice. The target-practice generally takes place on Sunday. Moreover, one or more army officers serve as instructors for each corps, and the state gives a subvention to each of five francs per member whose shooting is reported upon favorably by the instructor. In 1904 there were

Number of corps.....	50
Members cadet corps.....	6149
Members whose shooting favorably reported upon	3133
Total subvention by the State..	Frs. 15,665

PREPARATORY MILITARY INSTRUCTION.

Between the ages of sixteen and twenty the Swiss boy may, if he chooses, become a member of a preparatory military organization, which operates on the same lines as the Cadet Corps, except that the regular-army musket is furnished, and the shooting is more serious. It is laid down as a principle that in these organizations the chief attention must be given to gymnastics and shooting. It is not desired to turn out half-instructed recruits, but vigorous and agile youths. The state gives no subvention, but furnishes arms and ammunition. The drills generally take place late in summer afternoons, the shooting on Sundays.

In 1904 there were:

Number of organizations.....	20
Number of members	6507

THE CALL TO MILITARY DUTY.

During his twentieth year, about midsummer, the young Swiss must present himself for military service. Notice is put in the newspapers and posted on the town bulletin-boards directing the young men of such and such a commune, locality or ward to present themselves, usually at the mayor's office, for physical examination. This examination is severe, and only about one-half are accepted as fit for military service. In 1904 15,969 recruits were accepted. There is at the same time a short but severe literary examination of each recruit on non-military subjects as a test of the instruction given him in the schools. He must know the three R's fairly well, and understand the history and geography of Switzerland. If his knowledge is not sufficient he is made to attend evening school in his town till he reports for military duty.

The examination over, he is given his soldier's register, wherein is inscribed the first two acts of his military existence—his presenting himself and the result of the examination. He then goes home. The following spring or summer notice is sent

out for men of such and such communes to report at the *place d'armes*, or training ground, of their district at such a date. There are eight of these training places; one for each infantry division, and located in the district from which the division is recruited. The artillery, cavalry and engineers have separate training grounds. Each training school comprises barracks, storehouses, rifle ranges and training ground ample for a regiment of infantry.

The recruit is fitted out with a uniform and equipment complete in every particular for field-service and given a rifle. These articles he takes home with him when he returns and keeps them until the end of his military service, at the age of fifty. Whenever he is called out, whether for war or a period of instruction, he has to present himself fully equipped; if any thing is lacking he can be fined or imprisoned.

RECRUIT SCHOOL.

The military instruction of the recruit now begins. One of the corps of permanent military instructors, always a field-officer (there are 200 of these officers and they are strictly professional soldiers), has charge of the school, aided by a number of assistant-instructors and also a detail of commissioned and non-commissioned officers of the army. The recruits are divided into companies, sections and squads, and the instruction proceeds on lines similar to those obtaining at West Point when the fourth class is being broken in during camps.

Before the recruits arrive the detail of officers and non-commissioned officers who form the *cadre* of the battalion are given a week of instruction by the chief instructor and his assistants (professionals). The recruits arrive and their instruction proceeds as follows:

School of the soldier, squad and section, about four and one-half weeks.

School of the company, about one week.

School of the battalion, about one week.

The day consists regularly of eight hours' hard work, Sundays excepted. Besides the outdoor exercises the men are taught to keep their kit and arms, to cook, and are given some notions of hygiene, of the regulations and of the theory of shooting.

TARGET PRACTICE.

Each recruit is allowed ninety blank and 200 ball cartridges. Of the latter fifteen are fired in preliminary practice, eighty in individual practice, and one hundred and five in field war practice.

As instruction gets on, company and battalion combat exercises are begun, longer marches are undertaken (up to twenty-five miles) and two nights passed in bivouac.

At the close of the instruction each recruit receives in his book a note expressing an appreciation of his conduct and zeal.

The commandant of the school gives his whole time to supervising the instruction, aiding, advising and correcting, encouraging initiative in the instruction detail and inspecting the results of their work.

During this time the soldier is rationed, housed, etc., and receives ten cents a day pay. At the end of his forty-seven days of recruit training he is sent home, later is assigned to a battalion, and has no further military duty till the following year or the year succeeding that, when he is called out for sixteen days' training with his regiment (*cours de répétition* in the French text.)

As before stated, there is one of these training schools or camps for each infantry division. Three classes of recruits succeed each other at each camp during the summer. Each class consists of about 500 men. These are divided into companies of about 100 men each for instruction and discipline while at the school.

Thus, in 1904, there were 11,400 recruits received; there were twenty-four school periods and ninety-five companies of recruits. It may as well be remarked here that each battalion (800 men) receives roughly 100 recruits each year and these men continue to serve in that battalion for twelve years, doing sixteen days' field training every two years.

At the end of twelve years he passes to the Landwehr, where he has a period of training to perform every four years. At the age of forty-five he passes to the second reserve or Landsturm, where he has no military service except in case of war.

So much for the unambitious private. But suppose the recruit we are considering is above the average and wants to become a non-commissioned officer or an officer. At the

close of his seven weeks of recruit training the instructor has noted him well as regards discipline and intelligence. This note is put in his soldier's register and his name is forwarded with others to the chief military officer of the canton as being material for a non-commissioned officer.

SCHOOL FOR FORMING NON-COMMISSIONED OFFICERS.

In this case, next year, when the non-commissioned officers' schools are organized, our recruit receives an order to attend. He cannot ask for this order, but when received he must obey it unless excused by proper authority for reasons given. About 100 recruits will assemble at the division training camp, with a cadre of regular instructors and ten or twelve of last year's corporals and sergeants. During four weeks our recruit is put through every exercise that can teach him his duties or determine his value; he commands a squad, a section, a platoon; he drills the other men and in turn is drilled by them; he is given all sorts of field training and target-practice.

At the end of the course, if the recruit has not utterly failed (very few are dropped, as careful selection is made in the first instance), he is made a corporal.

The corporals, sergeants, etc., who attended this same course, forming the school cadre, are generally men selected as the best and they usually go home after the four weeks' work, promoted one grade.

In 1904 there were 2260 corporals graduated from these courses at the division training schools; only fifty aspirants failed.

Our recruit now become a corporal, can aspire to a commission at once, second lieutenants being appointed indifferently from all non-commissioned officers. However, neither he nor any other non-commissioned officer can go to the candidate-officers' school until he has spent seven weeks as corporal (or sergeant, etc.) at a recruit school and been favorably reported upon. Therefore, we will suppose our corporal is ordered the following spring, or the one succeeding, to one of the recruit courses as a non-commissioned instructor or part of the cadre. His seven weeks have given him more experience and confidence; he does well, and goes home noted satisfactorily as to conduct and capacity. The permanent instructors at these recruit schools must pay especial attention to this matter and make report through the chief instructor

and the division commander to the cantonal military department as to these aspirant officers, and upon this report the man is left in the ranks or sent up to an officers' school. He may be recommended simply for sergeant. Sergeants are also made from corporals at the end of one of the training periods, or after maneuvers.

SCHOOLS FOR FORMING OFFICERS.

Next year or the year following (depending upon how much military service he has recently done) our corporal (or sergeant), having now gone through (a) a recruit course, six weeks; (b) a corporal's course, four weeks; and (c) a recruit course as member of the cadre, six weeks, may be ordered (or he may asked to be sent) to the school for forming officers. This school is held at the division training grounds usually in the autumn when the recruit schools are finished. The course is six weeks and is chiefly theoretical, consisting of lectures, recitations and examinations. At the end of the course those who are recommended for it are made second lieutenants and go home. In 1904 339 men attended these eight schools, and of them four failed to get a commission. The military department this year again urged upon Congress that the school course is too short to make officers out of non-commissioned officers.

With his commission, the new second lieutenant receives his assignment to a company and a money indemnity sufficient to buy his officer's uniform and equipment, and he turns in his private's uniform and equipment. In principle all officers are furnished their uniforms and equipments at the cost of the state, and it may be noted here that *every* Swiss officer carries an excellent Zeiss field-glass.

Within a year after getting his commission the second lieutenant must go through a recruit course, doing his duty as lieutenant commanding a platoon of recruits; he must also attend the shooting school for officers at Wallenstadt.* His expenses on this, as on all similar duty, are paid. This instruction may be postponed one or even two years by authority for urgent cause.

In 1904 331 second lieutenants attended the shooting school in eight series. Captains and field-officers also attended to the number of 112.

*For details concerning Wallenstadt see continuation in May JOURNAL.

The infantry officer now has the privilege of going to the school of riding at Thoune for two courses, each of two months, at least a year apart. Here horses are provided, and an intensive instruction of six hours a day, mounted, takes place.

A second lieutenant is promoted after from four to seven years by seniority, but he must present certificates of capacity from the instructor of his arm and his commanding officer. During his service as first lieutenant he must attend a central school—six weeks' course—at one of the divisional training places. He is here prepared for his duty as captain, and if he does not prove himself capable he is not promoted.

The course is chiefly theoretical, except for the lessons in equitation and the staff rides. Tactics receives the most attention; lectures in law, administration and hygiene are also given. The professional instructors constitute the teaching body and the work is very severe.

This work generally goes on in the winter; the barracks have plenty of furnished bedrooms and a good mess so that officers have to bring only their clothing.

The first lieutenant must also serve with his company during two regular training periods (sixteen day each). If he is a promising officer he is called out for a recruit course, eight weeks, *as a captain*. This is considered as a candidate-captain's training. Having performed this duty satisfactorily, and received the certificates of capacity required from the chief instructor and his division commander (these men have had him under their notice and marked him for about four years, at the central school, the training periods and the candidate-captain's course), he is promoted to captain. This is generally at the end of four years as first lieutenant and the new captain is from twenty-seven to thirty-two years old.

First lieutenants of inferior capacity are not promoted, but pass to the reserve at the end of their thirty-fourth year.

A captain serves about six years before being promoted to major. He may, of course, not be promoted at all, in which case he passes to the reserve (Landwehr) at the close of his thirty-eighth year.

To be promoted to major, a captain must have served a training period as such or a recruit course as company commander, and have passed successfully his second course at the central school. If recommended by his superiors he may then

find himself a major when between thirty and thirty-eight years old.

A major must serve at least two years as such before being promoted, must have done a training period as major and gone through the course at the Central School for field-officers (third attendance).

Service of at least two years as lieutenant-colonel is required before being promoted.

The right to recommend for promotion to include grade of lieutenant-colonel belongs to the officer under whose orders the man, if promoted, will serve. These recommendations go through official channels and receive the opinion of each superior to the division commander. The chief instructor issues the certificate if he considers it merited.

The selection of commanders for brigades and regiments is made by a board which presents two names, one of which must be selected by the executive. The board is composed of (1) the Secretary of War, (2) the chief of the arm concerned, (3) the chief instructor of that arm, and (4) the commander of the division of which the regiment forms a part. The same principle prevails in all arms and staff departments.

The board to nominate a corps or division commander is composed of the Secretary of War, the four corps commanders, the four chiefs of arms, and the chief of staff. The general officer must be appointed from the two recommended by this board.

Promotion usually takes place, of lieutenants, by squadron; of captains, by regiment; of field-officers by brigade.

In general, throughout the army, a vacancy of brigadier would be filled from the colonels in the brigade, of *divisionnaire*, from the brigadiers in the division, of corps commander from the divisions of the corps. This is a custom, but not a law.

It must be borne in mind also that no enlisted man can aspire to become an officer who is not a graduate of one of the numerous high schools or colleges. I believe most of the officers are graduates of the university and have taken there the military course.

The above chiefly concerns the infantry, by far the most numerous and important arm in the Swiss service. The rules for training and for promotion are on the same general principle in the other arms, only in the cavalry and artillery the

courses are much longer. In the artillery the recruit course lasts fifty-seven days instead of forty-seven. To become a non-commissioned officer a further course of five weeks is necessary; to become an officer two more courses of six and nine weeks. The cavalry recruits' course lasts eighty-two days; to become a corporal forty-seven more days are demanded and for sergeant twenty-one days additional. Besides every non-commissioned officer must go through a cadre course of six weeks. The cavalry soldier serves, after his recruit year, twelve days every year for ten years. The cavalry and artillery instruction will be described more in detail hereafter.

LANDWEHR SERVICE.

The infantry Landwehr is divided into two *bans*, the first, composed of men from thirty-three to thirty-nine years old, is organized into regiments and brigades and may be called upon to take its place in the first line with the *élite*, or men in their first twelve years' service. The second ban, men from forty to forty-four, forms part of the second line, and furnishes troops for garrisoning fortresses, escorts for supply columns, etc.

When a man reaches forty-five he passes into the Landsturm, which does no military service except in war emergency. It is inspected once a year.

The Landsturm is divided into the armed and unarmed. The former, about 50,000, is organized into regiments, etc., as a third line; the latter, about 240,000 men, is divided into numerous detachments having special duties in time of war; such, for example, as pioneers for making earthworks, butchers, bakers, etc.

All the cavalry and field-artillery belong to the active or *élite* army—men in their first ten or twelve years' service. Cavalrymen pass to the reserve or Landwehr after ten years, but as their horses are by then fifteen years old, not much account is taken of this force except as concerns the men.

Artillerymen passing from field-batteries into the Landwehr man the ammunition train of infantry and artillery.

To illustrate the march of promotion, of retirement from service and transfer from first to second or second to third lines of defense, (1, *élite*; 2, Landwehr; 3, Landsturm), let us take the year 1904.

Transferred from active army to Landwehr: all captains born in 1866; first and second lieutenants born in 1870; roughly speaking, all non-commissioned officers and soldiers born in 1872.

Transferred from Landwehr to Landsturm: all captains and lieutenants born in 1856; all field-officers aged forty-eight who request it; all non-commissioned officers and men born in 1860.

Liberated from the Landsturm, *i.e.*, from military service: officers born in 1849, except those who ask to stay; non-commissioned officers and men born in 1854.

The following round figures give the average assignment during the ten years from 1895 to 1904 to the various arms. Total recruits per year, 17,100.

Infantry.	Cavalry	Field Artillery.	Mount. Artil.	Position Artil.	Train.	Eng.	Fortr'ss Troops.	Sanitary Corps	Army Service Corps
13,000	570	1060	100	200	500	600	400	530	140

In 1904 the army effectives were:

	ÉLITE	LANDWEHR
Staff.....	1,923	353
Infantry.....	114,271	{ 40,797 1st ban 23,454 2d ban
Artillery.....	17,464	12,862
Cavalry.....	5,197	3,797
Engineers.....	5,763	4,483
Sanitary Corps.....	1,919	1,877
Administration troops.....	1,414	837
Bicycle troops.....	109
Total.....	147,861	88,569
Total Landsturm.....	294,388	

THE CAVALRY SOLDIER.

The various "schools" or "courses" for the cavalry go on in the different training stations all the year round. Each cavalry soldier is called out every year for at least twelve days' training, and this during ten years. Let us suppose a boy wants to become an officer, and as his time of service approaches his family consents to this ambition. To show the system, we will carry him through the various "courses."

In April, say, he is called for his first or recruit service. Ninety days of very strenuous existence comparable only to that of a fourth classman in camp at West Point. School of the soldier, foot and mounted, target-practice, school of the squad second platoon, field-exercises in the open country, school of the squadron (one troop) and a few long marches.

If our recruit is well "noted" he is later sent to a school of candidate corporals, forty-two days of unremitting work. The aspirants act as instructors and drill each other in turn, whether for individual instruction or exercises of the squad or platoon. A lieutenant supervises each squad (see below) and a professional instructor the whole. Drill, mounted and on foot, target-practice and field maneuvers on a small scale.

Our candidate corporal, if well noted at the end of the forty-two days, is made a corporal or assigned to a squadron. He must then do twelve days of the regular annual training as corporal in his own squadron.

Some time after this, his service being satisfactory, he is sent to a candidate-officers' course. Here he passes sixty days of theoretical and practical work under regular permanent instructors. After passing his examination the young lieutenant is sent at once for a "recruit course" where he puts in ninety days as instructor and supervisor to the candidate corporals as described above, besides being instructed himself by the higher officers in his duties as lieutenant. This course is almost entirely practical.

This over, the lieutenant is sent to one of the "officers' courses" (École Centrale) at Thoune, where he passes forty-two days chiefly in theoretical instruction under the best instructors in the army.

This finishes his obligatory instruction and thereafter he has only his regular yearly training to do.

Before becoming a first lieutenant (say in six to eight years) he must put in forty-two days again in a candidate corporal's course as instructor; before becoming a captain he must attend a recruit course ninety days as captain instructor, a non-commissioned officers' course as instructor forty-two days, and do two periods of regular training with his troop.

Promotion to first lieutenant is by strict seniority; after that by strict selection. The cantonal military authority appoints captains, the central authority all higher officers, but no officer can be promoted unless recommended by his immediate and next higher chiefs.

The rules for promotion cited above for the infantry obtain, in general, for the other arms and will not again be referred to.

In practice, young men who aspire to become officers generally put in all of the above courses in their first year, and by addition it will be seen that 336 days are passed in obliga-

tory and most arduous training before one can become a second lieutenant. Sometimes the work is spread over two years, but both the candidates and the head instructors prefer to have the man put in one whole year of military service and get his commission.

In watching the various courses I was greatly struck by the intense interest and earnestness of purpose which mark the bearing not only of officers and candidate officers, but of candidate corporals and even recruits. There is a total absence of any spirit of shirking or trifling.

THE REMOUNT DEPOT.

In dealing with this interesting subject I shall be as brief as possible in the face of temptations to elaborate. I visited the whole establishment at Berne, a model of good stable management without any luxury, though there are, of course, some things we cannot approve of, but which are found in nearly all European cavalry stables, such as keeping the horses always in the stable and leaving the bedding always down to accumulate into a thick mattress, only droppings and the wettest straw removed.

The Swiss government buys all its horses for cavalry use in north Germany and (mainly) in Ireland. It gets better horses than it raises and it improves the home race, since mares as well as geldings are bought. About 900 horses a year are purchased, and I saw a lot just arrived from Ireland, the typical Irish half-breed with that tremendous length and slope of shoulders which makes these horses so sure over obstacles.

Swiss officers, as permanent buyers, select and pay for these horses on the spot and ship them. They are all about three and a half years old and unbroken to the saddle. An average price of 1000 francs a piece is allowed for these horses; some, of course, separately, would bring much more; some less. It costs about 250 francs each to get them to Switzerland, so that we may say the Swiss government allows \$250 for each unbroken mount.

The new arrivals are kept under close observation for sickness at the annex, several miles away from the main stables. They remain six weeks in well-arranged paddocks, are very well groomed and fed, and thus acclimated. At the end of six weeks work begins with the strongest, and during two months

these colts are broken and ridden at the walk and trot, in the hall and out-of-doors, two hours a day; lastly, they are carefully taught to climb hills around the depot and cross small streams. They are also broken to harness. All this work is done by civilian trainers; the stable work is also done by civilian labor, and it would be impossible to ask for better grooming. The *piqueurs*, as the riding grooms are called, seem excellent, steady hands, like their job and stay ten or fifteen years at it.

The horses are now moved up to the other stables near Berne, where the training continues by other piqueurs, on about the same lines, only, of course, more advanced, until at the end of from two to four months they are quite good in the three gaits, can jump in hand, obey the aids without hesitation and drive easily in harness.

The horses are then divided and sent to the three cavalry training grounds, where they go through four months more training under the best riders (paid piqueurs or trainers) and their education is finished. The work comprises the bending lessons, the three gaits and jumping obstacles. During the last month a bit is used, in spite of the horses not being of age, but it cannot be helped and they do not wish to send the horses out into recruits' hands unused to the bit.

For now, about one year after their arrival in Switzerland, the horses are sold to the cavalry recruits who are going to ride them. This is the most extraordinary part of the Swiss system, and most any regular cavalry officer would declare the idea utterly ridiculous as well as impractical.

It seems to be neither, and after a good deal of examination of the matter I can only say the system pleases men and officers, and while the latter would, of course, prefer to command permanent troopers, they say that they get together very good squadrons for real business.

The 900 horses we have been considering are divided into three classes: A, officers' chargers; B, horses with certain curable vices (sold to *old* soldiers whose horses have died, etc.); C, recruits' horses. The last ones sold for cost price, say \$250 (some of the best are put up at auction) to the 680 recruits who have just finished their ninety days' course. The men pick their horses with the greatest care, the officers offering advice. Sometimes five or six want the same horse, and offer as much as \$400 for him, and often they draw lots to decide. The recruit pays down half the price he offers, takes his horse with the

complete equipment and uniform of a mounted soldier, and rides proudly home. He is entitled to use bridle and saddle, but not the kit, as much as he likes. Thereafter, for the next ten years, whenever summoned for war or training, the man rides to the rendezvous completely armed and equipped.

Each year the government refunds ten per cent. of what the recruit paid down, and at the end of the tenth year he owns the horse outright and his military service is over.

These men for the cavalry usually come from the well-to-do farmer class, and they all volunteer for the cavalry, like it, are very proud of being cavalymen, and recruits are never lacking.

If the horse gets seriously ill the soldier has the privilege of taking him to one of the remount hospitals, and I saw a number under treatment; if he dies he is replaced by the remount under various arrangements.

The soldier chiefly uses his horse to drive, but with each year's training he gets to be a better rider, and on Sundays at least he goes out mounted. The good blood, a year's careful training and the man's own care and affection for the horse he has bought, serve to counteract the influence of harness use, and the Swiss cavalry officers tell me the results are not bad. Certainly the horses I saw in their fourth and fifth years of service were thoroughly good animals fitted for their work.

The cavalry is divided into twenty-four squadrons, each of 124 officers and men. Three squadrons form a regiment. A brigade of two regiments forms the corps cavalry of each of the four corps. There are twelve companies of guides, forty-three officers and men each. One company is attached to each of the eight infantry divisions and one to each corps headquarters.

There are also four machine-gun companies, one belonging to each cavalry brigade. All men are mounted and guns on pack-horses.

FIELD-ARTILLERY.

On January 1, 1905, the Swiss field-artillery received its new material (75 mm. Krupp) and with it a new organization. The fifty-six six-gun batteries were reorganized into seventy-two four-gun batteries. The seventy-two batteries form twelve regiments of six batteries each, each regiment is divided into two groups of three batteries each. There being four army corps, the artillery is assigned thus: to each infantry division one regiment (two groups, six batteries); to each corps as corps artillery, one regiment.

Regiments are generally commanded by lieutenant-colonels; groups by majors.

There are four army corps ammunition columns, each composed of six companies, two infantry and four artillery. There are four depot ammunition columns, each of three companies, one infantry and two artillery. The men for these parks come from the artillerymen, who, on completing their active or élite service, pass to the Landwehr. All the guns are served solely by men of the active army.

The law requires a stock of 800 rounds per gun to be kept on hand divided amongst the different ammunition columns.

STAFF OF A GROUP, THREE BATTERIES.

Major, adjutant, two doctors, three enlisted men(drivers), two officers' strikers, one wagon.

ORGANIZATION OF A BATTERY, FOUR GUNS.

Captain, three or four lieutenants, veterinary, sergeant-major, quartermaster-sergeant, six sergeants, five driver corporals, eight cannoneer corporals, forty-two drivers, sixty-four cannoneers, eleven mechanics, blacksmiths, trumpeters, etc.; four guns, ten caissons, battery wagon, forge, two forage and ration wagons, six lead horses; eighteen vehicles in all.

	AMMUNITION	ROUNDS
With a battery:	4 gun limbers	160
	10 caissons	960
	per battery	1,120
	per gun	280
Artillery ammunition column:	36 caissons	4,104
	1 extra gun carriage	40
	Total column	4,144
Corps ammunition column:	Total rounds	16,576
	per batt. (18 batts.)	920
	per gun (72 guns)	230
Depot ammunition column:	Total rounds	20,864
	per batt. (18 batts.)	1,159
	per gun (72 guns)	289
Total ammunition:	with batteries (72 batts.)	80,640
	Corps columns (4)	66,304
	Depot columns (4)	83,456
Total ammunition for the army		230,400
Total ammunition per gun		800
	Each gun limber carries	40
	Each caisson limber carries	48
	Each caisson body carries	48
Weight drawn per horse		550 lbs.

There are three training grounds for the artillery, and at each the requisite material, ammunition, equipment, wagon train, harness, etc., are kept stored and ready at all times for immediate use. When batteries are called out for training the men repair to their camp uniformed and equipped with personal kit; they find the guns and horses ready for them.

Horses.—Horses for the artillery service are procured by hire. In each district there is a contractor who, under the supervision of an officer who lives generally in the same place, furnishes the required number of horses. As this number hardly varies at all, it is known, as the time for each "course" approaches, just how many saddle and draft horses are required for that particular training period, and no trouble whatever is experienced in getting suitable horses. The large maneuvers take place always when the harvest is in and farmers are glad to let their horses at a dollar a day to the government, knowing they will be well fed and treated.

Saddle-horses for officers attending any particular course and who do not bring their own horses, are supplied by the state establishment (called *regie*), which buys, trains and keeps constantly on hand about 1000 horses for this very purpose. I will remark here once for all that I was even more surprised at the work and appearance of the artillery-horses than of the cavalry. The cavalry horse is of superior blood to begin with, has had a year of most careful training, and is invariably owned by the man who rides him; but the artillery horse is supplied for a few weeks' service by a contractor, and is ridden by an artillery driver, and knowing this I was ready to see very indifferent material. On the contrary, the teams were well mated and composed; the horses were, in general, of suitable build, and their work wholly satisfactory to the eye. The men rode fairly well, and the ordinary battery maneuvers were executed well enough for all purposes. I should say that seeing a column trotting along the road, the horses would compare well with our own artillery-horses; the officers were mounted much better than ours usually are.

THE COURSE OF INSTRUCTION.

The recruit course lasts eight weeks. The man serves either as driver or cannoneer, but not as both. Men aspiring to become non-commissioned officers or lieutenants generally begin as drivers so as to learn all that concerns the horse. The

driver's instruction in riding, grooming, etc., is conducted with extreme care and thoroughness. The men really know something of all this work before they begin.

Having finished his recruit course, the unambitious private has no more military service except three weeks' training in his duties every other year.

To become a non-commissioned officer an additional course of six weeks, as cannoneer and driver, is required.

I will now briefly trace the work required to become an officer:

1. Recruit course, eight weeks.
2. Candidate corporal's course, six weeks. In this work the men drill each other turn about under trained instructors in all the duties of non-commissioned officers.
3. Recruit course as corporal, eight weeks. The new corporal has to drill the recruits, and receives also separate instruction from trained instructors.
4. Course for candidate officers, four months. Equitation, school of the piece, the battery, foot and mounted, general theories, fire theory and much shooting.
5. Recruit course as second lieutenant, eight weeks. Immediately following four. The new lieutenant acts as instructor to the recruits, but is himself taught by the regular instructors.
6. Regular training as lieutenant, every other year, three weeks.
7. After about five years, and having done two periods of three weeks' field training, he becomes first lieutenant.
8. When made a first lieutenant he must go at once to a central school, six weeks. (There are three places where these are held.) This course is chiefly theoretical and comprises the work of all arms. He must also attend while a first-lieutenant (every other year).
9. Two training periods, three weeks each.
10. A shooting course, three weeks. Here the first lieutenant commands from time to time the horsed battery in actual practice to furnish proof of his fitness. Each battery fires from 600 to 800 rounds in these three weeks.

After this and before he can become a captain he must attend a

11. Recruit course, eight weeks as candidate captain. If well noted and recommended as to fitness by the head instructor, etc., he is made captain when a vacancy occurs.

As a new captain he must now attend

12. A shooting course, three weeks, where he commands his battery under the eye of the instructor, firing from 600 to 800 rounds. The captain then merely performs his regular service every other year. Before being promoted major he must, however, attend another course at the central school, six weeks.

All of the above instruction is intensely and almost exclusively practical, the course at the central school being the

only one largely theoretical. The gunners learn to shoot by shooting, the officers to direct the fire by constantly directing it under the eye of a most experienced colonel, who points out to the assembled officers after each fire problem the mistakes made.

It is doubtful whether Swiss officers of artillery, as a body, know anything but the rudiments of ballistics in the Fort Monroe sense of the science. There are a few experts, of course; but the battery officers are taught to shoot their guns just as infantry soldiers are taught to shoot their muskets, by constant practice.

To get an idea of the amount of this practice I made extended inquiries and found that in each of the "school" course above enumerated, each battery shoots about 600 projectiles. This matter is so important that I beg leave to elaborate a little. During his first eight weeks as a recruit the new artillery soldier sees fired by his battery 600 rounds, or by the gun he serves, 150 rounds. That gives him his first practical notion of shooting, though, of course, his attention is wholly absorbed by his individual duties. If this soldier never is promoted beyond private, he helps to fire, every other year, the 600 rounds of this battery.

But the shooting of a battery depends upon the officer directing its fire and the gun pointers. Let us see what opportunity these have to learn. The candidate corporal goes through a six weeks' course in a battery which shoots 600 rounds. He then acts as corporal in a recruit course and shoots 600 more rounds per battery; he then goes through a candidate officer's course—all purely practical—of four months, in which his group of three batteries is allowed 1500 rounds or 500 rounds per battery; he then becomes a second lieutenant and puts in eight weeks as chief of platoon in an instruction battery of recruits, which again fires 600 rounds. During each of the two periods of training he must make as second lieutenant with his command, 600 rounds are fired by his battery and some of it under his absolute direction; by this time he becomes a first lieutenant, and as such he again serves with his regiment two periods of training, firing during each 600 rounds; likewise during his service as first lieutenant he attends a shooting course of three weeks and fires in his battery from 600 to 800 rounds; attends another recruit course as candidate captain, 600 more rounds, then gets his promotion to captain and immediately

goes to another shooting course and commands his battery, shooting 600 rounds.

It will thus be seen that each battery commander in the Swiss artillery, during the ten years, say, since he entered the service, has in various capacities, from recruit to captain, helped to fire in his battery 6600 shots. Of these, 5400 were fired under his supervision or observation as candidate-officer or officer.

Now each one of these shots is made to tell in the highest degree upon the officer's training as observer and director of a battery's shooting as will be seen later.

Under the system of "candidate corporals," "candidate sergeants," "candidate lieutenants" and "candidate captains," every man must prove, before a keen and practiced instructor, his fitness for the grade he aspires to, otherwise he is not promoted; and the system ensures that on the outbreak of war no captain would be found in the artillery who had not already been present at or directed the fire in his battery of at least 5000 shots and no gun pointer would be found who had not actually laid and fired under various conditions his own particular gun from 300 to 1000 times.

The gun pointers are selected with great care from the whole body of cannoneers all over Switzerland. They are very proud of their place and they keep it permanently—or as long as efficient—for twelve years, serving always as pointer at the same gun. There are always in process of formation a large number of candidate pointers. The pointers are privates.

Here again we see exhibited the admirable principle which the Swiss Army never loses sight of in all its work: What is artillery for? To find and hit a given target. Very well, then, give each battery ample ammunition, let it fire over as varied ground as possible and make no man pointer or captain who has not previously shown that he knows how to shoot and hit with the field-gun.

[TO BE CONTINUED.]

THE STUDY OF LAW AT THE INFANTRY AND CAVALRY SCHOOL.*

BY MAJOR D. H. BOUGHTON, ELEVENTH CAVALRY.



ENTLEMEN: To-day you enter upon a new field of labor—the study of law. As the field is broad and the time limited, your energy should not be frittered away in useless research. You are the students, we the instructors; in order, therefore, to make the most of our time, let us at the outset know each other that we may have the inspiration of mutual confidence.

Our purpose is not to make lawyers of you, and we shall regret if such a notion is implanted in your minds. We do hope, however, to give you an efficient working knowledge of the law that army officers are called upon to administer and such a knowledge of the general subject of law as will enable you through logical reasoning to work out problems yourselves, or at least to find the law when in doubt as to what it is. At the same time the course is so mapped out that it will lay a good foundation for a further study of that subject should any of you desire to make it a specialty, for the days of specializing in the army are fast approaching.

All of you begin the course with the law knowledge acquired in the garrison schools, and some of you have doubtless made a special study of that subject. Law instruction in the army is of necessity fragmentary and incomplete, and you will find many gaps after completing the year's course, or even the two years' course, for those who gain admission to the staff class. But it is our desire to fill some of these gaps and round out the officer's knowledge of this important subject—a subject of which every well-educated man should have a general knowledge; and without which a citizen, be he in the military service or otherwise, cannot intelligently discharge his civic duties, or successfully guard his rights against the insidious schemes of designing men.

A saying that our wisest and most patriotic men love to quote is that "Ours is a government of laws." How im-

*Remarks by Maj. D. H. Boughton, Eleventh Cavalry, Instructor, to the Infantry and Cavalry School, Fort Leavenworth, at the beginning of the course in Law, 1905.

portant is it then that army officers, who are charged at all times with the execution of the laws pertaining to their profession, and who at times during the abnormal conditions of war or insurrection may be called upon take all law into their own hands in order to restore the normal conditions of peace, should have some knowledge of the fundamental principles of that science. With us to whom it is entrusted power prone from its very nature to be arbitrary the observance of law should be supreme. In peace and in war, in foreign lands or at home, it should be our loadstar and guide.

The army as an integral part of the general scheme of human government must share in the progress common to all the walks of life, and laws in the interest of the individual, be he soldier or civilian, are but the outward evidence of the continued advancement of the human race. In a greater individuality alone is a greater progress possible. But this greater individuality must be consistent with the requirements of an organized society where the rights of all are paramount to those of the individual. Liberty and not license is a principle as applicable to the army as it is to any other profession or community of individuals. Education develops individuality, but by an observance of the law is liberty maintained.

You have already studied military and international law, therefore we do not directly take up those subjects in this school. At the same time we keep constantly in mind the fact that you are military men and make the course here conform to that idea, with the object of broadening and making more complete the knowledge of those subjects that you already possess.

Military and international law are but branches of the great science of law and can be thoroughly understood only when their place and purpose in the system of general jurisprudence are known and comprehended. They presuppose a knowledge of those principles and premises that lie at the foundation of the science and without which a satisfactory understanding of any branch of the law cannot be obtained.

In military and international law many legal terms and principles are constantly referred to, and if the student has not an adequate conception of their meaning, his knowledge of what he is studying must be unsatisfactory and incomplete.

In the army we want practical men—men who can accomplish something. A man might learn all the laws of rhythm

and music and still not be able to play a tune. He might acquire a knowledge of the laws of architecture, but you would not permit him to build a house unless he understood and could use the tools necessary in carpentry. He might learn the laws of surgery, yet you would strenuously object to his cutting off your leg unless he knew the use of and could handle the necessary instruments. He might learn all the principles of strategy and tactics taught in the books, but a wise nation would hardly entrust the fate of her armies to his hands unless he had learned to command men.

So in law an officer might apparently master the subjects of military and international law, but unless he was acquainted with the tools of the trade, with the legal terms and underlying principles, his judgment might be warped and his conclusions misleading.

For these reason we have begun your course with the elements of law, and though it is but an outline, we trust it may be sufficient to enable you to fill in the details with future study. The reasons for including in the course the subjects of criminal law and evidence and the practice of moot courts-martial are patent to all and need no comment. We regret that time will not permit our giving the moot-court exercises a still more practical form with the actual use of trial courts, but that in a ten months' course is impossible.

The text-books selected for your use are prepared by men eminent in the specialty about which they write. They are arranged especially for the use of students with the idea that any legal principle can be stated in simple and intelligible terms, and that each separate branch of the law can be mapped out so that the fundamental principles involved can be shown in an orderly sequence and in their proper relation to one another. The principles of the law are arranged in heavy black letter type; the less important features, the exceptions and modifications, in ordinary type. As a general rule we do not expect you to learn the language of the book, but we do expect you to learn the *principles*, and your standing in law will be determined by the knowledge you have of them. In the criminal law you will find that the definitions of the various crimes are as nearly perfect as the ingenuity of man can make them, and you can do no better than to learn them by heart.

You will probably notice some variance between the defi-

nitions of the text and those from other sources. This should cause you no uneasiness, and a careful study of the technical meaning of the words used will often remove apparent discrepancies. As a rule, no two authors will use the same language in defining the same terms, even in so exact a science as mathematics. In law, therefore, discrepancies of this nature should not be a source of surprise, but should lead you to ascertain the true meaning and intent of the principle the author is attempting to define.

A science may be defined as the systematic and orderly arrangement and presentation of the truths and principles pertaining to the particular subject of discussion, as the science of mathematics, the science of chemistry, the science of war, the science of law. The truths pertaining to any particular subject are eternal, but the manner of arranging, classifying and presenting them is ever changing, ever progressing as new truths are discovered and new methods of discussion devised. Particularly is this true of the law which must be ever changing and improving with the changes and progress of civilization.

“ And I doubt not through the ages one increasing purpose runs,
And the thoughts of men are widened with the process of the suns.”

So therefore you need not be surprised or alarmed should you discover errors in the attempted statements of the truths.

Our law as a *science* is comparatively young. Before the time of Blackstone, who published his great Commentaries just before the Revolution, the truths and principles of the common law existed, but they were unsystematized, undigested, and often incorrectly and illogically stated. The condition of the common law at that time may be likened to that of a noble edifice when the materials have been gathered, but the construction not yet begun. The ground is covered with stones, brick, lime and timbers, but the form and character of the edifice are locked in the mind of the architect. Then the master-builder sets to work and gradually the building takes shape; order comes out of chaos, and design and purpose takes the place of confusion and disorder.

When Blackstone began his Commentaries he found the legal truths—the stone and brick and lime of the law—in as much confusion as did the master-builder when the latter set to work to convert the multitudinous building materials into a master-piece of architecture. Blackstone arranged, system-

atized and classified the crude legal material that he found scattered throughout the realm. He produced his Commentaries and law at once became a science, a legal edifice which has been called the pride of the human intellect and the collected wisdom of ages. It is well worth our study.

You doubtless think the lessons long for the limited time you have to bestow upon them, and so they would be under the old method of study and recitation where so much depended upon the memory. But the field of law is broad, so broad that no man can thoroughly traverse it under the most favorable circumstances. Realizing this we have changed the method of instruction in this department in order that the student may cover more ground and gain a broader knowledge of the subject, While thus enlarging the field, the object of our instruction will be twofold. First, to fix in your minds the salient principles in such a manner that they will always be of assistance to you, not only in the solution of legal problems, but of many others involving the exercise of judgment and discretion. Second, to show you when in doubt as to what the law is, where you may go to find it.

There are two systems or schools of teaching the law in this country, and each has its merits and ardent advocates. They may be briefly designated as the "case" and "text-book" systems. There is also what is called the lecture system, but this is only a modification of the text-book system, the student obtaining a statement of legal principles from the lecturer instead of learning them from a text-book.

By the "case system" the student is plunged at once into the study of adjudged cases, or decisions of courts, from which, with the aid of instructors, he is expected to determine what the law is. Manifestly this is impracticable for us as we have neither the time nor the facilities for so extended a study of the law.

By the text-book system lessons from text-books are assigned, for recitation. This system in its extreme form has been the only one in use in the army, we believe, until the present course was devised, the practice being to assign lessons and require the student practically to recite them from memory. This, as before stated, limited the field covered to a very small compass and placed too great a premium upon the memory of the individual. In our course here we have en-

deavored to combine the two methods, reading cases as far as our time will permit, for they are of great assistance in determining what the law actually is, and at the same time studying text-books to learn the fundamental principles, which principles have been analyzed and set forth by those learned in the law. Then, too, by the use of quizzes we free the student's mind from the burden of memorizing what he may already know, or can easily find by reference, and thus enable him to broaden his knowledge and extend his research. Lectures and notes in explanation or amplification of the text will be given you from time to time, but will not be learned for recitation or examination unless notice to that effect is given. Leading cases will also be assigned, but only for study in the recitation room. The student officer to whom a case is assigned will make such an examination as the time will permit and will then be required briefly to state the case with the decision of the court thereon.

Our method of study is essentially analytical, meaning by that the grouping of facts and principles in their logical order and sequence, and thus giving the student a skeleton of the law which his future readings will round out and complete.

As a rule each student has his own method of studying an assigned lesson, but I will suggest a method that I have found useful in two law schools where the lessons were much longer than those assigned here. First, look through the lesson and from the head lines learn what it is about; second, read rather hurriedly in order to obtain an outline of the whole discussion; third, read carefully and with pencil and paper make an analysis as you read. After a little practice you will find this comparatively easy, especially with our text-books which are arranged to facilitate the analytical method of study. The pencil analysis thus prepared can be used for a review of the lesson just before recitation.

I have already stated that it is not our purpose to make lawyers of you. When you leave this school don't imagine that you know everything. You will deceive no one but yourself. In the administration of law in the army we should strive to do justice—justice first, last and at all times, even at the sacrifice of brilliancy of prosecution or defense. Some of you will be judge-advocates of courts. The government wants no man convicted unless he be guilty; therefore strive

for the truth though the accused go free. During my service I have been judge-advocate or counsel in many important cases, and never once have I observed any advantage gained for either side by a course not wholly frank and above board. As judge-advocate or counsel do your duty to the cause you represent, but do it honestly according to your conscience and the best of your understanding.

Another, and by no means unimportant, matter; do not needlessly delay the proceedings by interposing objections which, though they may be technically correct from a legal standpoint, add nothing to your side of the case. For example, as a general rule the law of evidence forbids the asking of leading questions; nevertheless, through the inexperience of judge-advocate or counsel, such questions are often asked. Don't ordinarily object to them simply because you happen to know that they are leading unless they be prejudicial to your cause. If proceedings are taking an objectionable form a mild protest or good-tempered suggestion to the opposite party will often save a useless cumbering of the record.

Another matter of great importance to the administration of justice in the army is the question of punishment for wrongdoing. It is contended that the object of punishment is either the reformation of the individual punished or the protection of society against its lawless members. We shall not discuss the sociological aspect of this question, for in the army we know that the object of all corrective, deterrent or punitive measures is the maintenance of good order and military discipline. Punishment does not necessarily correct or reform. I have known officers who deemed it their duty to punish every infraction of the code military by sending the offender before a court. Those officers did not have the best disciplined commands by any means, and the men sought other organizations on re-enlisting, if they re-enlisted at all. My advice is to punish as little as possible, and never to try a man unless circumstances rendered that step imperative. Derelictions resulting from forgetfulness, ignorance or virile exuberance can at times be better corrected by admonition and counsel than by applying the lash of punishment.

But there are some crimes that cannot be overlooked. Obedience and subordination are the soul of the army and must be maintained under any and all circumstances. Still we should remember that in this country, owing to our ex-

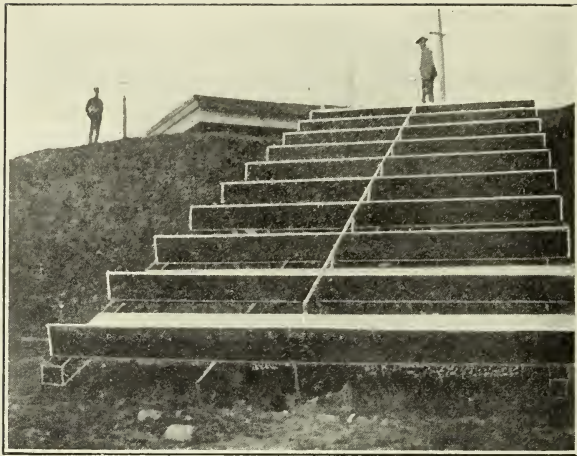
treme views of individual liberty and the idea that every citizen is one of the nation's sovereigns, young men enter the service with but little experience in matters of discipline and subordination. Our civilization does not treat ancestry, age and position with the same deference as do older ones, and therefore we should be lenient with new men until they have learned the meaning and necessity of a rigid discipline.

There is, however, another class of offenses always obnoxious to the army, always subversive of the welfare of society, always to be shunned, chastized by public opinion, and punished when punishment is possible—I mean dishonesty under whatever guise or form it may appear. It has been said that:

“The quality of mercy is not strained. It droppeth as the gentle rain from heaven upon the place beneath.”

But where dishonesty is there mercy should seldom be found. A dishonest act indicates deliberate design, a depraved heart, a withered conscience. In these days of greed for wealth, when, under the guise of high financeering, sacred trusts are violated, bank deposits embezzled, the electoral franchise debauched, and graft is rampant, we must be eternally on guard lest our honorable profession be disgraced and the army's escutcheon stained with the mire of fraud. Yours are the hands to help bear it aloft and keep it clean.

Gentlemen, I have given you a great deal of advice which you will take or reject as you see fit, but of one thing you are duly charged with notice and must act accordingly. Don't expect your instructors to be infallible. They know some of the law and will assist you to the best of their ability; but when those learned in the law differ in opinion and supreme courts reverse themselves, you must be charitable to us whose facilities for studying the law have been limited by the nature of our profession. You are invited to ask questions, but we reserve the right—a legal custom—of taking our time to answer.



A NEW APPARATUS FOR VISUAL SIGNALING IN THE DAY TIME.*

BY CAPTAIN THOMAS E. MERRILL, ARTILLERY CORPS.



SO far as the author knows the apparatus described in the following pages involves new ideas in the matter of visual signaling in the day time.

It was devised as a means for signaling from the shore to the tug towing target at coast artillery target-practice.

Let us first consider general principles: In order that an object on shore used as a signal may be seen by the observer on a tug, say 9000 yards away, there must be a strong contrast of color between the signal form and its background else the form cannot be distinguished from the background. The first proposition, then, is to secure this contrast of color.

Observation has convinced the writer that for artillery

*It is thought that by the time this article goes to press, a light portable machine embodying the same principles, but with many mechanical and other improvements will have been built for test by the War Department.

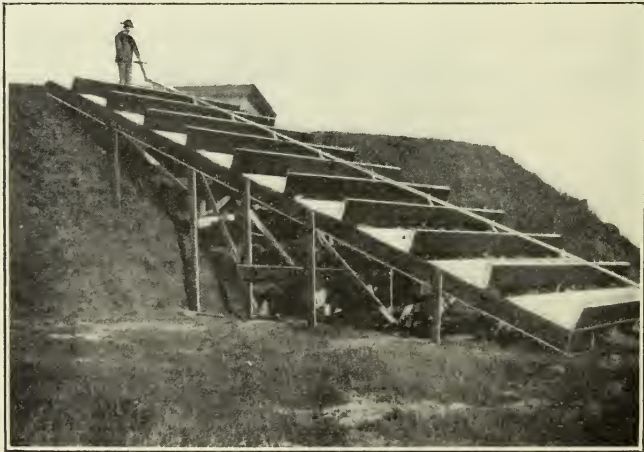
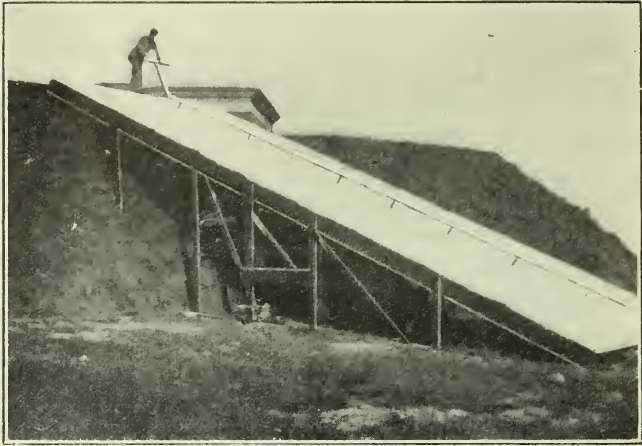
target-practice signaling the only two colors that should be considered are white and black, inasmuch as all other colors at long distances, under certain conditions of light and atmosphere, resolve themselves into weaker shades of these two. Furthermore, one cannot use color as the basis of discrimination between two objects displayed against the same background, since, assuming either a dark or a light background, we are at liberty to select only the opposite color for our signal form.

So far, then, we have reached the following conclusions:

The objects used to represent signals must be all of either white or black and their background of the opposite color. The easiest background to provide is a dark one. A grass or earth slope, while of course not black, will generally answer the purpose. Then our signal forms must be white. A white surface in shadow shows dark at long distances. We conclude, therefore, that in the general case it is necessary to use a surface whose face toward the observer is so inclined as to not be in shadow.

At Fort Heath a plane surface fifteen feet by forty with a fall of fifteen feet in the forty has been found to work very well when not in shadow, and on account of its inclination, fairly well even when in shadow. The plane faces toward the center of the field of fire and just a little north of east and on a sunshiny day in the fall of the year (say October 1st), comes into shadow at about 3.30 P. M. When there is no sunshine the plane shows distinctly until too dark for firing.

The plane surface consists of inch boards each a foot broad and fifteen feet long extending across stringers that run parallel with the long direction, there being forty of these boards. Every fourth board from the top is hinged to the preceding board, and all the hinged boards are so arranged by a system of levers and counterweights that all can be simultaneously raised to a vertical position or lowered to a position where they form part of the plane surface. There is of course a good deal of friction in the crude apparatus, as it stands, to be overcome in starting. A special counterweight weighing about seventy-five pounds which is in play for a short time gives the hinged boards an easy start in moving to the vertical position. The counterweights on the interior boards are tin cans filled with sand, each placed at the extremity of a metal arm; weight of each can and contents about ten pounds. There are no



NEW APPARATUS FOR VISUAL SIGNALING

weights on the counterweight arms for top and bottom hinged boards on account of interference with ground. The counterweight arms are bent slightly so that when the hinged boards are vertical there is sufficient lifting pressure to keep them there without using the operating bar of apparatus. Openings in the plane surface are necessitated to allow for the bend in the counterweight arms when hinged boards are down.

The plane surface is painted white with a whitewash specially prepared to withstand rain. The underside of the hinged boards and the stringers under the hinged boards are painted black. When the hinged boards are vertical the apparatus looks black from the front because each hinged board covers the preceding white boards to such an extent that they are invisible to an observer situated to the front and on a slightly lower plane. The four views shown give a good idea of the construction and location of the apparatus.

The operation of the apparatus resembles that of the heliograph and is as follows: Normally the white surface is in view. The observer on the tug watches the white surface. When a signal is to be sent the white surface disappears, due to the raising of the hinged boards. Using the Myer Code, to send (1) lower hinged boards and immediately raise; to send (2) lower hinged boards, leave down, say five seconds (estimated by counting five), and raise again. There is no pause between the parts of a letter. The pauses may be, for instance, between letters, five seconds; between words, ten seconds; between sentences, fifteen seconds. The pauses replace the *three* flash used for the same purpose in the heliograph. The apparatus has been found to work almost as rapidly as the heliograph and (an important advantage) is easily operated by one man.

The appearance presented to a distant observer when a message is being sent is as though a vertical square fifteen feet on a side changed uniformly throughout its entire surface from black through all the intermediate shades to white and *vice versa*. At a distance one does not see, as the square changes from black to white, a succession of bands of white increasing in width until the entire surface is white, as one might at first thought expect, but just a uniform change in color over the entire square. Of course, for artillery target-practice a single letter would indicate a preagreed-upon command.

For artillery target-practice a platform which shows a vertical square of fifteen feet on a side is about the smallest

size that should be used. This size is sufficiently large to enable the observer at, say 9000 yards, to easily see the signals with the naked eye. It is highly desirable that the observer should be able to do without field-glasses. Owing to the motion of the boat it is sometimes impossible for an observer to hold his glasses steady enough to make out distant objects. Furthermore, under such conditions, observing becomes more and more difficult and tiresome as it is continued.

The lumber utilized in the present apparatus was lumber of no value, which had already been used by the engineer department in cement and concrete work. The nails, paint, etc., were obtained at the post, and the lever and the counter-weight apparatus cost the writer about twenty-six dollars. The total cost for new material for an apparatus such as the one constructed at Fort Heath would not exceed eighty-five dollars, and the labor would not exceed, say, twenty dollars. If built at post the labor cost would be omitted.

The signal apparatus described was used with complete success for the entire subcaliber and service practice of Forts Banks and Heath during the fall of 1905. During the service practice the range of the tug varied between 4000 and 7000 yards. The practice lasted from about eight-thirty A. M. until about four P. M. the same day. It is safe to say that at least one hundred signals, each a single letter, were sent during the day. Not one was repeated and not one was misunderstood.

The following memorandum was issued with regard to the signals to be sent by this apparatus during the service artillery practice of Forts Banks and Heath, Mass., October 25, 1905:

FORT BANKS, MASS. October 18, 1905.

Memorandum:

SIGNALS FROM POST.

The new signal board will be used.

Ordinarily the white surface will be in view.

When the white surface is not in view a signal may be expected.

Letters are signaled using the Myer Code.

The start is from *black*. *One* is sent by bringing the white surface into view and making it disappear at once; *two* by bringing the white surface into view and keeping it in view about five seconds.

When everything is going satisfactorily the white surface is in view so that the observer on the tug can readily see it. If a signal is to be sent the white surface disappears and the signal is sent after a brief interval. After sending a signal the white surface may be kept out of sight until satisfied that the signal is being properly obeyed when the white surface is brought into view and left there

until another signal is to be sent. After the signal increase or decrease range or incline course in or out has been sent the white surface will not appear until the tug has come in or gone out far enough.

THE SIGNAL ARES:

1. To increase range..... "I"
2. To decrease range..... "D"
3. To incline in..... "N"
4. To incline out..... "O"
5. To plant fixed target..... "P"
6. To start towing target..... "T"
7. To retrace course..... "R"
8. To indicate that command "commence firing"
has been given..... "G"
9. To indicate that the command "cease firing" has
been given..... "Q"
10. Practice ended..... "E"

The firing of a shot may be indicated by making the *white* disappear and then reappear.

By order of Colonel Davis.

(Signed)

T. E. MERRILL,

*Captain, Artillery Corps.
Adjutant.*

The memorandum is by no means complete. It was prepared to cover only the one occasion.

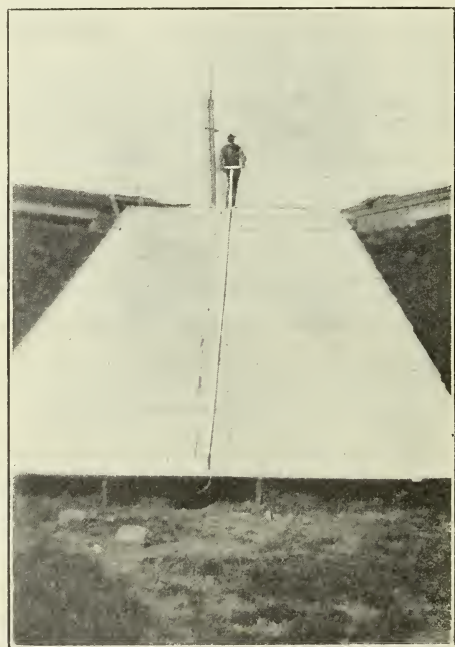
Referring to the memorandum it will be observed that signals were provided to indicate when firing had commenced, when each shot had been fired, and when firing had been suspended. These signals were of great assistance in enabling the range party on board the tug to rest except when shots were to be expected, and to be particularly alert when a shot had just been fired.

No attempt has been made as yet to perfect the apparatus. It was thought best to publish a description of what had already been done without delay in order that the development might be hastened by the thought of all interested in the subject. Such improvements as substituting adjustable leaden weights for the cans of sand and making the lifting brackets and the counterweight arm for each hinged board in one piece of metal, however, readily suggest themselves.

For signaling over a wide range of azimuth the apparatus could be pivoted so as to face any direction, and in order to keep the face out of shadow longer the lower end of the frame could be arranged so as to allow of being raised, with, of course, a corresponding sacrifice of apparent size.

The size of apparatus and angle of slope selected would depend on local considerations. Under conditions which enabled the observer to use a field-glass or telescope from a steady platform it is readily seen that the apparatus could be used for sending visual signals over distances of a great many miles.

If desired, the apparatus could be made so light, and the parts so well fitted, as to almost do away with the necessity for counter-weights. The entire affair could be constructed of light metal pieces with detachable duck coverings, so arranged for taking apart that all could be transported in convenient bundles. It is even conceivable that small portable sets could be used to advantage in place of the flags now used in signaling by the wigwag method.



THE TORPEDO FOR COAST DEFENSE.

BY CAPTAIN FRANK A. WILCOX, ADJUTANT,
THIRTEENTH INFANTRY.



IN writing upon a subject so foreign to the functions of an infantryman perhaps an explanation or even an apology is due from me. I will defend myself by saying that since the summer of 1898 it has been my unalterable conviction that the subject of submarine mining belongs not to the infantry or cavalry service; not to the engineer or artillery corps, but to one sole and independent organization—a torpedo corps.

We must claim that military science is a great science, taking its stand with other great sciences and with them developing to such a grand scale and into such interminable detail that a comprehension of the science finally passes far beyond the capacity of any individual human mind.

We, like the others, must resort then to specialism. Submarine mining as a branch of our science associates itself with the coast artillery, as the cavalry does with the infantry, and should be kept as distinct therefrom. The trained artilleryman in his own field has many problems yet to solve and enough more will present themselves to require his concentrated study.

The subject of submarine mining, whatever its present state of development, is in its infancy. Its possibilities of development and extension are without doubt greater than in any other branch of our science. Its powers are little known, and the problems that will present themselves for solution are numberless.

As a student at the United States Engineer School I became greatly interested in the submarine mining. Later, as the officer directly in charge of the installing and operating of the mining system at Hampton Roads in 1898, I had great opportunity to observe the practical workings of the science and to study its lessons. What impressed me greatest of all was not the effectiveness of the system—and I will warrant there is none more effective—but the almost limitless possibilities of development and increasing effectiveness.

The use of the torpedo has been a phase of the Russian-Japanese War that I have followed with great interest. Great maritime nations cannot fail to read and heed the lessons now being taught in the Orient.

In reading of results and achievements in this great war, we are forced to speculate and make comparisons with our own powers and resourcefulness.

In studying the personnel in this war the qualities that strike us with great force are courage, valor, grit, determination and *training*. If I am asked, How about the American who may be called upon to fight his country's battles? I can only repeat the remarks of a general officer who upon one particular occasion was in a position to make many appointments to semi-civil and military offices. There were many applicants, and on one occasion friends working in the interest of an office seeker were harping on the bravery of the applicant when he had been a soldier in the field. The general was somewhat irritated and said, "Great God! courage is the cheapest commodity in the American Army, the country is full of it. Is he reliable, has he brains, has he training?" The last, in this great and resourceful nation, is the vital word and question, "training"—training in each and every separate branch of our military science, or taking the word in its most comprehensive sense, *preparation*.

In studying the mechanics of the war the palm must be awarded the torpedo for its effectiveness and value received. I do not mean the delicately adjusted, undecided meandering missile shot from the tubes of war ships, but the grim, sullen, pent-up submarine mines anchored firmly to the sea bottom and defying entrance to the harbor.

In what other phase of warfare do we reach such percentage of effectiveness? To gain in warfare you must make sacrifice. Where else is gain so great for sacrifice so small?

On April 13, 1904, the Russian battleship *Petropavlovsk* was decoyed upon a Japanese mine and sunk almost instantly—a ship costing approximately five millions of dollars, representing years of construction, with its admiral and staff and 750 officers and men wiped out of existence in an instant by a can of guncotton skilfully planted in a night by a few trained hands and representing perhaps a cost of not over one hundred dollars.

In the normal battle it is slaughter for slaughter or ship for

ship. The submarine mine when it has dealt its blow will take with it to the grave its giant antagonist, a loss to the enemy ten-thousand fold. In fact, the Confederates in the late Civil War called a specie of submarine they devised "Davids" because they put forth to destroy the Goliath ships of the Union Navy.

In the mechanics of war, with the ingenuity and resourcefulness of our countrymen, it hardly seems credible that we could be outdone, yet such is possible if legislation fails to provide the means to the end.

I quote the following from an article of Maj. John P. Wisser, Artillery Corps, U. S. A., who is an artillery expert. In drawing his deductions from the war in the Orient he says: "In the first place, a certain degree of preparedness must be attained, depending upon the geographical position of the country, and the distance over the sea of the possible enemy. In the next place, command of the sea is essential for oversea operations on land, and to enable the navy to fulfil its highest duties to attain this, the home coast must be fortified to render it secure. * * * The torpedo has become the most destructive weapon known to modern warfare, and every fortified place must have its torpedo shore batteries, submarine mines where they are practicable, torpedo boats and submarine boats or submersibles, in sufficient number to aid properly the defense."

We can hardly look for war to come to us via our nothern or southern borders. If war does come to us then we may expect it to come over the sea and great will be the task to be performed by our navy. It must be our task to make safe a refuge for our ships when they may be driven home by stress of numbers or must return to refit, to reassemble or to prepare for a fresh onslaught. There can be no more effective temporary refuge than a harbor that is skilfully mined, the mines controlled by trained hands rendering the mined field perfectly safe for the passage of our own fleets and absolutely fatal to the fleets of an enemy who would be so bold as to follow.

The mechanics of this last problem are already well solved; but where are all the tools, the material and the training? In this connection I quote the following from a recent issue of the *Army and Navy Journal* referring to the Fortification Appropriation Bill, which passed the House January 6th: "One

specially commendable feature of the present bill is an item of \$300,000 for the extension of submarine defenses, the need of which was strongly urged by General Story, Chief of Artillery, in his recent annual report. General Story estimates that it will cost about \$3,000,000 to complete the torpedo defense of our principal harbors, and he holds that it would be criminal to neglect the work. The appropriation of \$300,000 for that purpose is grossly inadequate, but it is better than nothing inasmuch as it will enable the authorities to make a beginning on the work and trust to Congress to provide an additional appropriation every year until the project is completed."

\$3,000,000 is a small sum in the great issues of war. The battleship *Texas* cost over \$4,000,000, the *Iowa* over \$5,000,000 and the *Oregon* over \$6,000,000. The battleship *New Hampshire* when completed will cost \$8,000,000. There seems to have been no great obstacle in appropriating these great sums, yet with difficulty only \$300,000 could be appropriated in the work of preparing havens of refuge for our ships, commercial and war, and protecting our coasts by submarine mining.

\$8,000,000 would install an effective system of submarine mines in twenty of our smaller harbors capable of holding at bay for a considerable period simultaneously twenty fleets of the enemy. What would the \$8,000,000 battleship be alone against a single one of the twenty modern fleets? This of course is not a strictly true comparison for the battleship can seek the enemy on his own coasts or wherever he may be on the seas, while the submarine mine with all its development and enormous power lies inert and helpless until the enemy comes to it and disputes the right of way. However it may not be unreasonable to state that up to certain limits for every million dollars spent on the paraphernalia for coast defense, a greater money value expressed in ships will be freed to enter into the operations of war at large.

Turning more to the technical phase of the submarine mine, we find it is an American invention, which first made its appearance during our Revolutionary War as the product of the genius and patriotic ardor of a Connecticut Yankee, one David Bushnell. Robert Fulton attracted great attention in the early part of the last century with his startling experiments in New York Harbor with torpedoes of his own in-

vention. Colt, the inventor of the revolver, invented practicable forms of the submarine mine.

Little advantages seem to have been taken of these experiments until the time of our Civil War. The Confederates, alive to the fact of the great superiority of the North by sea, sought to neutralize this great power by every possible means. Probably the most effective devices resorted to in protecting the Southern harbors were the submarine mines constructed by them and planted in the ship channels.

During this war no fewer than twenty-eight vessels were blown up by mines and six vessels by other forms of torpedoes. In addition to these positive results the moral effect of the Southern torpedoes must have been enormous. In fact, the Confederacy, realizing finally the wonderful possibilities of the torpedo in warfare, went so far as to organize a torpedo corps, but it was too late to develop an effective practical system of submarine mining.

On important occasions the moral power of a mine field has been successfully defied by a brave and desperate invader. Such action to-day should be made impossible.

Before Farragut entered Mobile Bay, in August, 1864, he knew that mines had been placed in the channel, yet in he steamed with his fleet. He saw his leading ship, the *Tecumseh*, suddenly lurch and sink to the bottom before his very eyes with her brave Captain Craven and nearly one hundred souls. The next ship halted, but Farragut ordered his own ship forward and assumed the lead. The officers of the *Hartford* heard the scraping of the torpedoes against the copper bottom and heard the primers snap, but no torpedo exploded. Equally fortunate were the ships that followed. Had the mines been in a proper state of efficiency, Admiral Farragut and his fleet would have gone to the bottom of the harbor, and instead of gaining a victory they would have suffered overwhelming defeat. Admiral Farragut would have died a great hero, but would his fame as a great naval commander have been what it is to-day?

A great and generous spirit seems to have watched over and guided the ships of our navy from the days we sought independence.

The Confederates placed a mine in Charleston Harbor, at one time directly under the *Ironsides*. This mine was to be

controlled from the shore by a lanyard, but pull and pull as they might the torpedo failed to explode.

In our war with Spain, the cruiser *Marblehead*, in getting too close to the Cuban coast, caught a Spanish mine in her propeller. Examination showed that the firing pin of the torpedo had been driven to within a fraction of an inch of the exploding charge, which small space was all that separated a fine ship and her crew from "Kingdom Come!"

Taking these cases I have cited, we may say, after all, it was not a great guiding spirit that saved our ships, but rather poorly constructed or defective weapons, planted and operated by untrained and unskilled hands.

During the year just passed the torpedo has made its place in warfare more evident than before. The Japanese have lost the following ships by submarine mines: First-class line-of-battleships, *Hatsuse*, 15,000 tons, and *Yashima*, 12,300 tons; coast defense ship *Heiyeu*, 2250 tons; protected cruiser *Sai Yen*, 2350 tons; unprotected cruisers *Miyako*, 1800 tons, and *Kaimon*, 1360 tons; torpedo boats Nos. Thirty-six and Forty-eight. In addition, the battleship *Akashi*, 15,000 tons; cruiser *Chiyoda*, 2450 tons, and destroyer *Harusame*, 275 tons, were badly damaged by contact with mines.

On the Russian side the battleship *Petropavlovsk*, the cruiser *Yenesei*, the gunboats *Bohr*, *Gilyak* and *Gremiastchi*, and several torpedo-boats, were sunk by mines. The battleship *Probieda* was badly damaged by mines. The *Sevastopol* is the only ship reported destroyed by the naval or mobile torpedo, but this only after she had grounded and was helpless to their attacks. The cruiser *Yenesei* was being used as a torpedo transport and was probably at work in the mine field when she was sunk by one of her own mines. This only further emphasizes the necessity for trained and skilled hands and the necessity of using only specially adapted ships or boats for the mechanical work of planting.

It is probable that the submarine mining about Port Arthur represents less than half a million dollars (not including the counter-mining operations of the Japanese which must be charged as a credit to the submarine mine proper). The returns in ships destroyed or put out of commission must certainly exceed the sum of twenty-five millions, and the labor of years has been set at naught by the work of a few months.

Captain Klado, of the Russian Navy, being interviewed by

the French press, predicts that the first act in future naval war will be the wholesale sowing of blockade mines off the enemy's ports, which, he adds, will be done "in a single night, at the moment of the declaration of war or even before it, for more and more the tendency is to strike before the declaration."

To be able to effectively block a harbor in a single night would be a great accomplishment and would represent an ideal state of training and preparation. Up to the present date it is an accomplishment not yet acquired, but many nations may strive for it in wars to come.

In commenting upon the prediction of Captain Klado, the *Army and Navy Journal* says: "In view of these impressive results, which conclusively demonstrate the effectiveness of mines, it is morally certain that those implements will enter into extensive use in the naval warfare of the future unless their employment is placed under restrictions by an international agreement. Their use in the manner suggested by Captain Klado would be intolerable, for the reason it would be a menace of destruction to neutral commerce. Since the outbreak of the war in the Far East three neutral vessels plying their trade have been sunk or damaged by these engines of destruction, and there is no telling how many others have narrowly escaped a similar fate."

True as this may be, yet the fears and great drawbacks to submarine mining, as expressed by the *Journal*, do not follow as a necessary sequence to this system of warfare. In fact, such is a very unnecessary sequence.

Recognizing the possibilities of the torpedo as exemplified in the Civil War, General Abbot, United States Corps of Engineers, conducted a series of exhaustive experiments and gradually deducted a practicable system of submarine mines, with practicable methods for all the operations of installing, controlling and caring for the system. For this work General Abbot is conceded by all writers on the subject, American or European, to be the father of the science of submarine mining.

Realizing that blocking one's own harbors to its own ships and of its own commerce as well as closing it to the enemy was seriously objectionable as a war measure, General Abbot devised the system whereby the mines were controlled electrically from the shore, whether the mine itself was to work automatically or was to be fired by observation from the shore.

The theory of General Abbot was well-nigh perfection, but

under his successors many mechanical improvements were made, particularly such as pertain to the electrical functions, for electricity was a very undeveloped science at the time of General Abbot's experiments.

The system, however, had no real test until the war with Spain, 1898.

The *personnel* was lacking at the very outset. Money procured great quantities of cable and electrical appliances. It hired the best boats available, but they were lacking in many essentials. It could not hire trained men, for outside of the small number of engineer soldiers there were none. The few engineer soldiers allotted me at Fort Monroe were as faithful men as were serving under the flag, but not one could make a sounding in the swift current at Hampton Roads and hence, not one was able to plant a submarine mine.

These men, having in their enlistment been put through a thorough course of battalion drill and guard duty, field engineering, mechanical maneuvers, pontoon bridge building, etc., as well as submarine mining instruction, I am therefore doing them no injustice when I say not one of them understood the use or even care of the electrical appliances in the casemate, which knowledge could be acquired only after months of theoretical and practical study.

Negro boatmen were employed and rendered very valuable service in the water operations, but they had a nervous dread of the weird and unknown weapon they were working with and it would have required but little to have stampeded them. I recall very vividly their flight from the dock when the torpedo numbered thirteen was rolled in sight. With an enemy's fleet nearby it is a question how many of these negroes I could have relied upon to work on the mines, for these torpedoes needed constant attention.

I will say in this connection, however, that these torpedoes were not sowed by the wholesale "in a single night," nor were they sowed in a single day, nor in two days.

The system, in the main, responded with much success to the tests it had to undergo, but there were mechanical defects, remediable, but which for the period were a source of constant trouble.

The torpedo itself with its new "circuit closer" worked to perfection and demonstrated its safety to friend and deadliness to foe.

Though a well-marked channel with deep observation mines was left for the shipping at Hampton Roads, many ships got out of the course, and bumping into the torpedoes became a common occurrence.

No better illustration of the safety of these mines can be given than the incident of the navy collier that drifted from the channel of Fort Monroe into the mine field and by backing and filling, dropping anchor and twisting and turning, broke the cables of, and put out of commission, no less than thirty torpedoes. I will say, in justice to the system, however, that had these torpedoes been set for action, which could have been done by the moving of a lever on shore, the first torpedo touched would have sent the collier to the bottom, leaving the other twenty-nine effective and ready for immediate action.

Very soon after these mines had been repaired, a schooner bearing a cargo of barrel staves caught fire and was abandoned. She threatened the shipping to such an extent that I was authorized from Washington to blow her up in case she drifted over the mined field. The next day, the hulk still burning, drifted among the mines, and there at the very place wheret he naval collier had been pounding the torpedo cases the burning vessel ceased to be a menace to the shipping.

Some of the torpedoes removed from the bay were badly indented by bow collisions and by propeller blades. Nevertheless, when afterward returned to the bay, they were exploded by simply allowing the electrical circuit to close.

No Spanish Farragut came to defy these mines and to force violent entrance into our harbors; no venturesome enemy like the Japanese before Port Arthur came to destroy these torpedoes by counter-mining; yet for the number of untrained men who were engaged on this defensive work it cannot be said their service was not fraught with danger.

In preparing to load mines at Jacksonville, Florida, a mistake was made and two lives paid the penalty. In repairing mines in New York Harbor two lives were lost. In raising a mine below New Orleans, La., six men lost their lives. In preparing to unload mines in Boston Harbor, two more lives were lost.

Twelve lives in a war seems small, but great is the loss where such sacrifice is unnecessary and where no gain accrues to the government in whose service these lives were forfeited.

European countries with extended seacoasts applying the

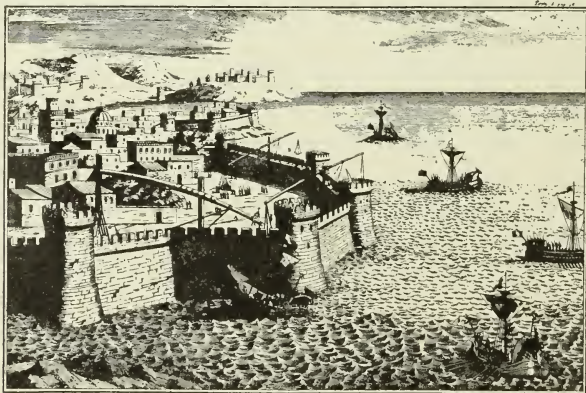
lessons first taught in our own country have organized TORPEDO CORPS to develop this branch of the military science and to put it in effective use in time of war.

Let not the teacher be out-taught by her pupils. If this country with its thousands of miles of seacoasts can, by developing the science of torpedo warfare and by effectively training a corps of soldiers in that special science, better provide for the protection of our harbors and the safety of our homes, making more secure the peace of our people, then may our legislators see the opportunity and then may they make that provision that is due a humane and wealthy nation.

If a contemplation of the lives forfeited by the twelve men untrained in the science of submarine warfare may turn our military experts and our legislators in the direction of organizing an army torpedo corps, then may the souls of the twelve unfortunates say their sacrifice was not wholly in vain.

NOTE.—Since writing the above essay there has appeared in the *Scientific American* a detailed description of the sinking of the *Petropavlovsk* off Port Arthur by Japanese mines.

The mines had been connected by a cable and set adrift in the track of the enemy's ships so that the bow of a ship coming in contact with any part of the cable would cause the mines to swing in against the sides of the ship, where they should explode on contact. It is interesting to note that this is almost identical with the means employed by David Bushnell in attempting to sink a British sloop of war in New London Harbor during our Revolutionary War. Bushnell's mines were timed to explode by clockwork. When these mines were collided with and swung into the sides of the vessel they were discovered by the sailors and were picked up and placed on the ship's deck. While the officers and crew were endeavoring to find out what manner of infernal machine they had picked up, the explosion took place, killing all within close range. Had the torpedoes exploded in the water against the hull of the sloop of war she would have gone to the bottom instantly. In spite of the great development in the construction of battleships, the ideas of a century and a quarter ago seem equally effective to-day in their destruction.



CORBEAU D'ARCHIMEDE SELON POLYBE ET PLUTARQUE, QUI SERVOIT A HARFONNER ET ARIEVEER LES VAISSAUX

EMPLOYMENT OF PHILIPPINE SCOUTS IN WAR.*

BY MAJOR WILLIAM H. JOHNSTON, PHILIPPINE SCOUTS,
COMMANDING FIRST BATTALION.



ANOTHER item of expense to be saved by the substitution of native for American troops is found in transportation. The scouts being enlisted here, men discharged do not receive large sums for traveling allowances, usually none at all, since they may return on government (chartered) transports from the places of discharge to those of enlistment, and no payment is made for journeys between islands, while no expense for the transport is due to the discharged soldier's journey, since such boats make regular voyages for delivery of stores. As the scouts remain in this division, the biennial transfer of regiments back and forth across the Pacific and across the States would be avoided. As the ration is smaller, it weighs less and hence less transportation, in the United States by rail, by transport across the ocean, by inter-island transport from Manila to depots and stations about the islands, by wagon, pack train or native cargo bearers from the sea coasts to stations in the interior, and finally with the troops in the field, would result. As a measure of the latter two items may be cited this station. Rations are sent from this coast place to Mactaon, twenty-five miles in the interior, for two companies. There is no road, and native cargo bearers require four days to make the round trip. They receive twenty-five cents and a Filipino ration daily. It costs about \$1,000 monthly to keep that one station supplied with rations alone, no quartermaster supplies being carried as the trail is too difficult. As one native employee carries only forty pounds, and some must carry the rations for the escort and the other cargo bearers, it requires 1000 cargo bearers per month and 4000 Filipino rations to keep two companies ready to chase Pulajans from their mountain hiding places in one district perhaps forty miles square.

As the scout maintains a much smaller percentage of sick, less medicines, fewer surgeons and nurses, less transportation

* Continued from January Number.

to bring the above out here and move them about, and less quarters to shelter them and the sick would be required.

Officers of the scouts are seldom men of families, and further appointments could and should be limited to unmarried men, the demand for accommodations for families on the transports being much reduced. Officers of this organization, not being detached for special duty away from troops, the accounts of officers joining from the tours of absence in the States, whether mileage or actual expenses, would be reduced.

Finally, when death terminates the soldier's contract of enlistment, interment of a scout occurs, as it should for every soldier, where he dies. Only a morbid sentimentality causes the present expense of disinterring and shipping the remains of every American to his home or to a national cemetery. But it is an item of no slight expense at present, and all except the expense of a pine casket might be avoided by the substitution of native troops. The measure of economy in many of the items of transportation can only be obtained by reference to the books of the quartermaster-general. There is not an item of the military budget in which the economical advantage of employment of native troops can not be shown, but it would extend unduly the length of this article to dwell upon all.

Aside from the difference in expense for transportation, medical care, nursing and interment of enlisted men, and of accommodations at stations and on transports for officers' families, none of which can be quoted without data inaccessible to the writer, the saving in pay, clothing and rations, of a force of 12,000 natives compared with an equal number of Americans, is as follows:

120 COMPANIES, 30 BATT. SGT. MAJ. 12,000 MEN.	*PAY.	†CLOTHING	‡RATIONS.	TOTAL.
American troops, foreign service	\$2,473,668	\$545,760	\$854,100	\$3,873,528
Philippine scouts	1,236,834	388,800	572,466	2,198,100
SAVING	\$1,236,834	\$156,800	\$281,634	\$1,675,428

It may safely and conservatively be estimated that the full force of Philippine scouts would save the government two

*Not including difference for continuous service pay.

†Not including difference of clothing allowances of non-commissioned officers (American) over the one allowance for scouts of any grade; but based upon assumption that all Americans have drawn only old uniform, and received lower allowance quoted above.

‡Comparing garrison and Filipino ration.

million dollars annually of the appropriations for the support of the army. Officers of the General Staff and the army's friends in Congress may well ask if this be not worth while. To be sure the rations and clothing of the American troops would cost the same and the pay be five-sixths of the amount received over here, but the saving of transportation and other expenses incidental to service abroad would remain as a constant economy. Moreover, the General Staff has said we need infantry ready for the first line in sudden war, that this infantry must be in the States ready to embark for any country with which hostilities may occur, and that the requisite amount of cavalry and infantry of the Regular Army cannot be found in the States while so many are in the Philippines, without an increase of both arms. As preparation for war involves raising more troops of these arms, my purpose is to suggest a plan by which such troops can be most economically raised and maintained.

The changes suggested above would leave in this division two regiments of cavalry, four regiments of infantry, one battalion of engineers, four field-batteries (one with mountain equipment) and thirty battalions Philippine scouts, equivalent to ten regiments of native infantry, exclusive of signal and hospital corps and non-commissioned staff—A total of about 300 officers and 5000 men of the line (Americans) and 330 officers and 12,000 men of native infantry.

The addition of 7,000 native infantry to the present force of about 5000 could be best accomplished by the gradual organization of seventy more companies, as follows: Each of the present companies should be divided equally, sergeants, corporals, cooks, musicians and privates, the first lieutenants or detailed captains, taking the present organizations, and the second lieutenants, or the first lieutenants not now commanding companies, the new companies, to be numbered from fifty-one to one hundred. These half companies of trained men should then be recruited carefully to an authorized strength of one hundred enlisted men. Recruits for each company should be obtained from the same provinces as the original members of these half companies, even if serving at a distance from their homes. It is not wise to include in one company natives of more than one tribe or province, as such mixture leads to quarrels and the formation of cliques among the men. As an instance of the facility with which good recruits may be obtained may be cited the experience of two companies of this

battalion. On arrival at Manila sufficient Ilocanos were found who had come to Manila from the Ilocos provinces to enlist in the Twenty-fourth Company when it should return from the States. The Forty-seventh Company (Visayan), needed forty recruits; its company commander was sent to Iloilo, where the company had been organized in 1900, and within ten days of his arrival had filled his company by selection from a multitude of applicants. Again, during an interruption of field-service in Samar, the commanding officer of the Fourth Company (Macabebe) was sent to Macabebe, near Manila, and in four days filled his company, more than half the recruits being re-enlisted men, though Samar is the most unpopular and hardest station in the islands.

After recruiting these companies, fifty old and fifty new, half the number should be sent to garrisoned stations for drill, discipline and equipment, and the great advantage to be had by association with American troops. After six months they should relieve the other companies at the smaller stations and in the field, who then should each have six months of training at places garrisoned by Americans.

The organization of the remaining companies, to be numbered from 100 to 120, should be deferred for one year, by which time the other companies will have become efficient and well trained. Six of these should be recruited among the Tagalogs, six among the Ilocanos and eight among the Visayans, those being the most numerous Christian tribes and best able to furnish the recruits. Each of the new companies should then receive by transfer from companies of the selected tribe sufficient old soldiers for a full quota of non-commissioned officers and twenty privates, sufficient new recruits being added to this nucleus of forty trained men to make an efficient organization after six months' service at an American garrison.

Thus in a little more than a year the full enlisted strength of 120 companies would have been obtained, and 100 of these would be well trained and ready for any service.

Now as to their officers. The reorganization of the Philippine scouts would entail the detail of only twenty-three more officers of the line, captains to command the new battalions (only seven battalions now organized).

There are at present fifteen detailed captains, from first lieutenants of the line, fifty-eight first and fifty-eight second lieutenants of Philippine scouts. All the second lieutenants

should be promoted, subject to examination to be mentioned below. As a few lieutenants are in the States on leave, and seven first lieutenants are acting as battalion adjutants, we should still have 100 first lieutenants (or captains) to command the first force of 100 companies. The other company commanders need not be appointed or promoted for six months or a year. Second lieutenants, say one hundred and thirty (100 for companies and 30 for duty as battalion quartermasters) should be appointed at once. As there are said to be over two thousand applications on file in Manila from non-commissioned officers of good recommendations for such places, it will not be difficult to obtain the best material. When, after a year, it becomes necessary to find company commanders for the increment of twenty more companies, sufficient first lieutenants must be provided to make the number 150 in all (120 for the companies and thirty for battalion adjutants) and the remaining second lieutenants could then be appointed, either from the ranks or from civil life.

Before such expansion be effected, orders should issue prescribing an examination of each second lieutenant's efficiency, and his mental, moral and physical qualifications for command of a company. Any such found lacking should be discharged. As no legislation is required for these promotions and appointments, they should comply with specifications to be announced in orders, and more care should be had in the selection of second lieutenants. Men who lead a charge in the brush or make good sleuths in the swamps of these islands may prove utterly incompetent in the administration and command of companies or stations. What we want are good soldiers who may in the future make good post commanders, not detectives or leaders of blood hounds. It must be remembered that this organization is essentially infantry, and its officers are liable to the same demands for intelligent service as any other officers of the infantry arm.

Two negative qualifications should characterize the new appointees: they must not be married, and they must not be natives.

No argument is needed to show that the married company officer is out of place in a scout organization. For that matter, he has a hard rôle to fill in any organization. He either neglects his family or his company. The frequent changes of station, so common in the islands, are an expense and a hard-

ship to his family, and care for his family, if with him, may prompt him to stay in the town garrisoned instead of chasing ladrones in the hills.

Enlisted men have more respect for an American officer than for a native. In time, sufficient natives may have acquired a sufficient knowledge of English and of United States Army methods of administration, to discharge their duties as second lieutenants, but that time has not come.

When this expansion has been completed, the Philippine scouts consist would of:

Thirty majors (detailed from captains of the line), 150 first lieutenants (120 with the companies and thirty as battalion adjutants), 150 second lieutenants (120 with the companies and thirty as battalion quartermasters), besides a few detailed captains, if it be deemed advisable to continue such details.

Total: 330 officers and 12,000 enlisted men.

As these troops are to serve jointly with American infantry they should be armed and equipped as are other infantry soldiers, that is, with the magazine rifle, model 1903, including a bayonet, as the present machete is worthless, more ornamental than useful. And for further expansion in case of war, a reserve supply of ordnance and all other imperishable supplies, sufficient for 12,000 more native troops, should be kept on hand at Manila.

As American organizations complete their tours of foreign service, and these native organizations become effective, the former could be returned to the States, without being replaced from there, until the quota of American troops shall have been reduced below the minimum suggested above. We should then have in the States twenty-five regiments of infantry, besides one in Alaska, and thirteen of cavalry.

Later, legislation should be sought for the better preparation of this force for use in war, but all the above may be accomplished without any resort to Congress—that is, at once.

Among the changes in organization for which legislative authority should be recommended are the following: 50.

1. Organizing the thirty battalions into ten regiments, and adding to each the necessary enlisted strength for regimental non-commissioned staff and a band, according to the organization of any infantry regiment.

2. Authorizing the selection and detail from among officers of the line, by direction of the President, of a lieutenant-colonel and colonel for each regiment.

3. Authorizing the detail of three regimental staff-officers for each regiment from among lieutenants of the line, and revoking the present authority to detail such lieutenants as company commanders (which is a hardship to certain scout first lieutenants) and as battalion staff-officers (which authority is not now used).

4. Providing that details to the organization, as colonels, lieutenant-colonels, majors and regimental staff-officers, shall create vacancies in the regiments from which such officers are detailed, as do details now made to the staff corps.

5. Creating the grade of captain, Philippine scouts, to which lieutenants of the organization could be promoted by selection from among the first or second lieutenants, by a board of general staff-officers in the Philippines Division, after examination of efficiency records and the reports of inspectors-general. All lieutenants who aspired to such promotion should be required to pass a competitive examination, practical but thorough, upon the duties of a company commander, and be favorably reported by all his superiors during his service. All promotions thereafter to be by similar selection. (It is well known that the lineal arrangement of lieutenants appointed in 1901 to this organization was the result of lot, and the seniors are not necessarily those who at appointment had the longest or the most distinguished service in the ranks or the volunteers. Whatever may be urged against promotion by selection in the American regiments, that is the best method to keep a scout officer efficient and ambitious, and will secure for the service the best material.)

6. That the President be authorized, whenever war be imminent, to increase the commissioned and enlisted strength to twenty regiments organized as is the peace strength, with a total force not to exceed 25,000 enlisted men.

(This could be done by dividing each company into halves and recruiting to the prescribed strength, as is recommended for the present expansion. Officers appointed or detailed for the war, and men enlisted for the war, to be discharged or relieved, and the older soldiers, not war recruits, consolidated into the former and permanent peace organizations at the close of hostilities, or sooner if so directed by the President.)

It is in the operation of the last clause that will be found the most decided advantage to be gained by the use of this native force. Let us suppose that war becomes imminent on

the Asiatic continent, whether with Japan, Germany, France, the Chinese Empire or any other power. It will become imperative to have in these islands a force sufficient to defend them, and too much time would be lost if such defense must await the arrival of newly organized volunteers from the States. The coasts are absolutely without defense, and even though such be placed in time at Manila, Olongapo, Iloilo and other harbors important for military or commercial reasons, an expedition backed by a powerful navy might disembark at many places or any of them outside the defended ports, and attack Manila from the rear. In 1899 United States Volunteers were determined upon in June, yet they did not reach Manila until October, November and December. These islands with over seven million population could furnish hundreds of thousands of soldiers (natives) for defense, and a splendid force could be organized and armed within a month, the time necessary for regulars to sail from San Francisco, if they were there and ready. To have even a portion of such force trained, we must organize and teach them in peace, preserve a record of their addresses and make their service in war obligatory, if called upon.

Again, suppose it be determined to despatch the corps of regular troops, of which the General Staff comments as essential for a first line, to any of the islands of the Orient, or to the Asiatic continent to protect our interests. If the force of ten native regiments be maintained in peace, and legislative sanction be obtained for its immediate expansion in war, a division could be sent from Manila to participate in the enterprise of this first line in time to land with it anywhere in the Orient, and would prove a valuable re-enforcement before volunteers could sail from San Francisco.

The inter-island commerce is immense, and many steamers would immediately be available to concentrate these native troops in Manila harbor, and to carry them, under convoy of the navy, wherever the rendezvous might be appointed. We are one month nearer any point on the Chinese coast than San Francisco, and as many steamers can be chartered at Manila as at San Francisco.

It must be remembered that war, even when successful, causes losses, and that losses of American lives on foreign soil would render any war most unpopular and seriously embarrass the administration. But if when inevitable war causes an

expedition to foreign soil, and battle losses are announced, such blood shed be that of Filipinos, the American public will view the enterprise with much less discontent than if each death vacated a place at an American fireside.

The proposition advanced above presents two decided advantages:

1. The relief of a large portion of the American contingent in the Philippines in time of peace, and their presence in the United States ready to form the needed complement of the first line essential for immediate use in time of war. At the same time, the reduction of expense of the garrison of the Philippine Islands and the training of a larger number of native Filipinos as soldiers who may prove useful as auxiliary troops in war.

2. But the most decided advantage will be found in the better organization of the native contingent for use in war, and the maintenance close to the theater of a possible war in the Orient of a force of 12,000 well disciplined and trained infantrymen, capable of expansion in war to double that strength and available either for the defense of these islands or for joint expedition with American regulars to foreign soil.

The vital importance of having such a force is recognized by thinking men, and the "brain" of our army has officially recommended that steps be taken to obtain the infantry needed in event of sudden war.

Partial preparation for such a force may be made without asking for any legislative sanction, by expanding our native force at once to thirty battalions and gradually substituting them for the American troops to the number of 7,000 men, which can be transferred to home stations within a year.

By the time advantage has been taken of the present authority for 12,000 native soldiers, their efficiency and the economy of their employment will be so generally recognized that legislation for further expansion when war becomes imminent will be readily obtained.

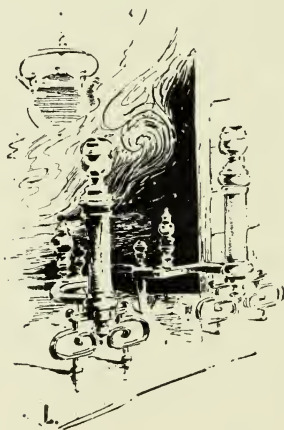
Should we not help ourselves in a practical manner, before presenting further claims to Congress? Is it not better to do something even if that be not the ideal thing, than to engage in academic discussion of theories? Is not the experiment worth while?

For years an effort was made to add a third battalion to each infantry regiment. While this argument was pending

two of the ten companies of each regiment were skeletonized. Was there logic in asking Congress for twelve companies, when our own Department failed to use those authorized?

Similarly, can we logically ask Congress to increase our infantry while we fail to organize and employ seven thousand of those already authorized?

Congress, like Providence, helps those who help themselves.



AN ORGANIC UNIT FOR MACHINE GUNS.

BY LIEUT.-COLONEL B. L. BARGER, FOURTH INFANTRY, O N.G.,
LATE FIRST OHIO VOLUNTEER CAVALRY (1898.)



ALL officers of experience will admit that there is, and should be, a friendly rivalry between the different arms of the service. It is also conceded that machine guns belong neither to infantry, nor to cavalry, nor to artillery.

It is probable that the drill regulations for machine guns should most nearly resemble those of the artillery, but the projectile thrown by the machine gun is the same as the one set in motion by the infantrymen and by the cavalrymen when dismounted.

The foregoing basic facts are not stated for the information they contain, for all men know these things; but they are set forth as hypotheses from which to deduce an answer to a current question, namely: What organization will give the machine gun its proper and effective tactical use during an engagement?

This question should first be decided, because the minor details of organization and of drill are necessarily subservient to the main requirement, namely, fire action at the proper tactical moment.

It is submitted that the experiment with machine guns now being carried on by the army has been provided for without due regard to the basic facts hereinabove stated. This experiment has caused the issuance to an infantry regiment of several machine guns which are to be used by infantrymen under infantry officers. These infantrymen may, on field service, act as infantrymen, think as infantrymen, feel as infantrymen. They have no *esprit de corps* except as infantrymen. They may have no special qualification for handling machine guns, for keeping them in repair, or for making tactical use of them. They are too closely identified with their own regiment, with their own company commanders, with their own battalion commanders, to make efficient use of the special appliances which have been issued to them.

No man can serve two masters with satisfaction, even in time of peace; in battle the difficulty in doing so is very greatly increased.

But it has been demonstrated that machine guns may be used in a battle with very decided effect if the proper tactical employment is made of them. The writer has in mind an incident in the Boer War, where a Boer force, about regimental strength, formed one defensive line. The English had located the line, and preparatory to its assault had ordered up a light battery for shrapnel fire. The Boer commander was ready for the battery. He had a few Vickers-Maxims in the hands of men whose sole duty it was to use them, and who understood that use. Its commander so disposed his machine guns as to command the approaching artillery. The English came into view of the machine guns at eighteen hundred yards range, advanced to fourteen hundred, and went action front, or rather attempted to do so. During the time of this advance the machine guns were busy with the battery. The result was that the battery did not fire a shot before it was put out of action.

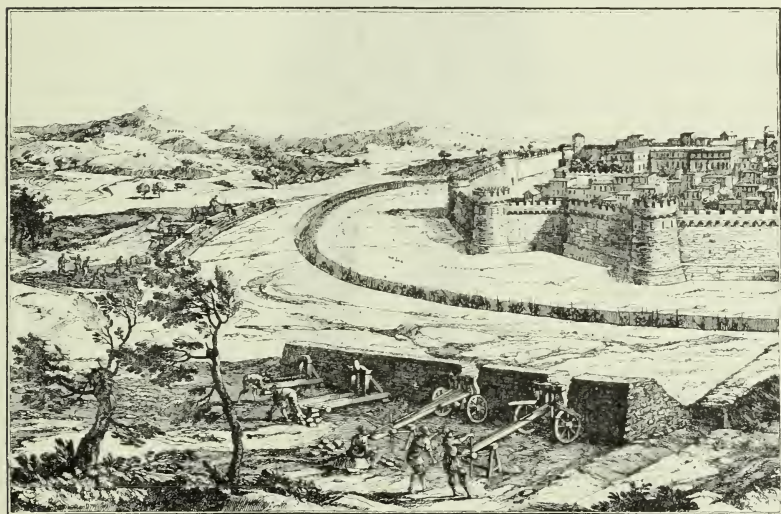
This incident is cited as mental pabulum, and the consideration of it is helpful in planning the organization of machine-gun outfits.

The morale of a force and of every unit in it is kept up by the companies, troops, regiments and batteries, and is necessarily directly affected by the arm which the soldier uses for offense or defense. The mental processes of men in battle, under stress of great excitement, are largely mechanical; that is, they are those processes which have become habits by training. This psychological fact is the basis of all training for battle, and to ask an infantryman to be also an artilleryman, at a moment when his mental faculties are acting mechanically or subconsciously, is doubtless asking the impossible.

What then should be done with the machine gun, with its infantry projectile and its semblance to artillery? This answer is submitted: It should be in the hands of officers and men who have nothing to do in preparation for an engagement but to develop its proper use. These officers and men should be a tactical unit—an organic unit. They should therefore be a company, and be attached to the next higher administrative unit, namely, the regiment. The commanding officer of the machine-gun company then makes his disposi-

tions for an engagement under the direction of the regimental commander. The regimental commander in fighting his regiment then has an extra company which will oftentimes render the assistance of artillery unnecessary. This extra company is capable, under officers of special training, of rendering the greatest possible service in many emergencies to its regiment. The regiment itself then has a minor artillery of which it will be proud, and to which it will render appreciative assistance. The machine gun will be no longer an orphan, but will have the "Old Man" to look to in its troubles. In battle it will be where it ought to be, a part of the most important arm for offense or defense—the infantry.

NOVEMBER 6, 1905.

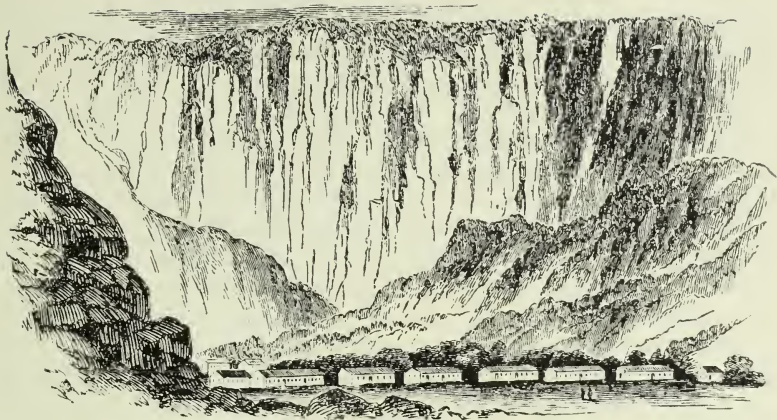


BATTERIE DE BALISTES ET DE CATAPULTES



SEVENTH R. I. INFANTRY.
(Captain 8th U. S. Inf.)

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William P Hopkins, Esq.



FORT DAVIS.

TYPES AND TRADITIONS OF THE OLD ARMY.

EXTRACTS FROM THE UNPUBLISHED MEMOIRS OF MAJOR-
GENERAL ZENAS R. BLISS, U. S. A.

II. CIVIL WAR NOTES. TWIGGS' SURRENDER, 1861.

MR. JAMES MAGOFFIN, who had been appointed by the State to receive the property at Quitman from me, did not come in person, but sent his son Samuel, who receipted to me for all the property, and with his train helped to move our supplies to San Antonio. He and his brother-in-law, Gabriel Valdez, went with us. After a long march of 140 miles we reached Fort Davis and found that a company of rangers from San Antonio had already reached there, and Capt. E. D. Blake of the Eighth Infantry in command of Davis had turned over all government property to them. He had heard of their coming, and had cut down the flagstaff in order that no rebel flag should ever be floated from it. He was a native of South Carolina, but at that time had no idea of joining his fortunes with the South. After a day or two at Davis waiting for his command we started again. The command at this time consisted of six companies of the Eighth Infantry, all under Capt. I. V. D. Reeve, 8th U. S. Infantry, Bvt. Lt.-Col. Major Bomford, who had just been promoted major, had been on a court-martial in New Mexico and had returned to Ft. Davis and awaited the arrival of this command in order to take advantage of it as escort. Captain Blake commanded his company, I commanded mine, and the other companies were commanded by Lieutenants Van Horne, Lazelle, Frank and Beck, and Lieut. W. G. Jones was with one of the companies. Asst. Surgeon

DeWitt C. Peters and Mrs. Peters were with the party, he being the medical officer of the command. Lieutenant Freedley of the Third Infantry had been detained in San Antonio after his regiment left, and was sent to Davis in charge of a government train to bring these troops down the country. The command thus consisted of one major (Bomford), two captains (Reeve and Blake), one first lieutenant (myself), six second lieutenants, one assistant surgeon and one lady, with six companies of the Eighth Infantry, numbering about, I should say, about two hundred and fifty enlisted men. The command of Fort Davis was turned over to the Texas rangers, and we marched away. The sutler at Fort Davis, Alexander Young, a native of Pennsylvania, accompanied us, and took with him the goods he had been unable to dispose of. He had a large supply at the post, probably \$40,000 to \$50,000 worth of goods, and these he sold as far as he could find purchasers, and was not very particular as to the terms.

Our orders from General Twiggs were to take only such rations as were necessary to take us from post to post, and only such ammunition as was necessary to defend ourselves from the Indians.



Gen. Twiggs.

We continued our march without any event worthy of record, and without meeting a person till we reached Sycamore Creek, about twenty miles west of Fort Clark. Lieutenant Freedley and I were riding ahead of the command, and as we approached the creek we looked over the bluff and saw two men on horseback, watering their horses in the creek. They looked up and saw us, and immediately turned, and putting spurs to their horses disappeared through the brush toward Fort Clark; we had a good laugh, as we thought they had mistaken us for Indians, and had been stampeded. We learned later that they were rebel pickets sent there to watch the road and report our approach. We had no idea that things had proceeded so far that the commander of Fort Clark would consider it necessary or advisable to watch our movements, and could not understand the sudden disappearance of the men. We had seen no one on the road, the mail had been stopped, and I presume our only thoughts were what would be done with us when we got to New York. All the other troops had gone out of the State and taken passage for that city, and we of course expected to do the same, and our speculations were more on what would be done with us when we reached the North than on anything else.

We approached Fort Clark one morning, having camped the night before on the Piedra Pinta Creek, seven miles from the post. As we

approached the post, Lieutenant Freedley and Mrs. Peters were ahead on horseback, and as they rode into the post they were taken to an office, and held there as prisoners, till the troops arrived and went into camp. We were met by an officer, and requested to encamp on the opposite side of the creek from the post, near the little village of Brackett, which we did. We were out of rations and were obliged to draw them there, and received enough to take us to San Antonio. Major Teel of the Texas troops was in command of Clark, and he acted as if everything was all right, and that we would go directly to the coast and there take transportation to the North. I went to the post on business, and on looking about was surprised that walls had been built between the houses looking up the road, in the direction from which we came; these walls were bullet proof and had embrasures through which the guns of the post were pointed, covering the road over which we had approached the post. When asked why these warlike preparations Teel said that he did not know but we might attempt to take the post, and had thought best to be on his guard. We remained in camp there that night, and started next morning for San Antonio. What we had seen at Clark made us suspect that there was something in the wind that we were not posted on, but we got no intimation from any one that there had been any change in the program, and there was nothing for us to do but keep on. We marched through the small settlements on our road to San Antonio, but heard nothing of importance, but a general regret that we were to leave the State. Everyone seemed to be as much in the dark, in regard to the future, as we were, and a general gloom and anxiety seemed to hang over all with whom we talked. Many of the settlers in and near these small towns along the road had large herds of cattle, and they very well knew that they could not remain there without the protection of the troops, and they looked forward very anxiously to some settlement of the troubles between the sections.

On the 8th of May, 1861, we encamped on the Medina, near Castrovilla, and as we made a long march that day, nearly all the officers and men retired early. Lieutenant Freedley and I went over the river to Castrovilla, and went in a lager beer saloon. While in there a German beckoned to Freedley to come into a back room; he went, and on his return proposed that we should walk down to camp. When we were out of earshot of the saloon he told me that the man had told him that we were to be attacked that night in camp, that General Van Dorn was on the road from San Antonio with 2000 men, and would, if possible, surprise and attack us that night. We went directly to camp and found nearly all the officers in bed. We awoke them, and Colonel Reeve called a sort of council of war to decide what we had better do under the circumstances. There were many propositions made and discussed; the only ones of any importance were those made by Colonel Bomford, at least the one made by him, and that

was to cross the river, capture or take possession of Castroville, destroy the outbuildings, and take all necessary measures to put it in a state of defense, and then try and hold out till we could get some advantageous terms from the enemy. Colonel Reeve did not want to take the responsibility of doing this on a mere story told by some man with whom none of us were acquainted; and as the agreement made by General Twiggs and the rebel commissioners had so far been strictly carried out, he did not think he would be justified in committing any act of hostility, or in destroying any private property. I knew an old road that had not been used in some years that ran to the south of the usually traveled road to San Antonio, and I suggested that we should make large camp-fires and do all we could to make the people of the town believe that we were to remain all night, and then move out and try to pass the rebel army, and get into San Antonio behind them, and there attempt to make a fight. If we could not pass the rebels unknown to them, we could at least reach Adams' hill, where there was a large stone ranch with corral walls, and a fine spring of water, where we could make a better fight than at any other place on the road, and would be in a stronger position than any other on the road. After discussion, this plan was adopted, and we moved out of camp about midnight, and with pickets pushed well ahead on the road, we started.

The pickets had orders to move very carefully to avoid being seen, and immediately on discovering the rebels to return to the command, and we would leave the road and try to march around the Rebel Army, and take and hold San Antonio till we got what we demanded. We marched all night, at least till daylight, and finally reached Adams' hill without having seen or heard anything of a rebel force, and many, perhaps all, thought that we had been deceived by the man at Castroville.

On our arrival on the hill, the troops were formed in line of battle and arms stacked. As none of us had any sleep in twenty-four hours, everybody lay down on the ground, and most of them were soon asleep. I was soon awakened by a soldier, who was shaking me and calling out that the rebels were coming. I jumped up. The command was formed under arms instantly, and we looked out to the east, and saw the rebel force approaching. Adams' hill was quite prominent, and was capped by the ranch of Adams, and on the west side of it the San Lucas Spring had its source; from this the men had filled their canteens, and the small supply of cartridges, not more than eight or ten to a man, had been distributed. We had been ordered to take only sufficient ammunition to protect us from the Indians, and I do not think we had much if any over ten rounds, when we started from our different posts. This was the morning of the 9th of May, 1861, and a beautiful morning it was. The troops were formed in line on the east side of the hill near the top and extending across the road, on the

north side of which was a large stone corral which would have afforded splendid protection against musketry. The house of Adams on the top of the hill and to the west of the corral, was of stone, and against infantry, we could have held the position against very largely superior numbers, but the stone walls would have been worse than nothing when attacked by artillery.

Immediately in front of us was a valley, perhaps 800 yards wide, and on the opposite side of this a ridge nearly as high as Adams' hill crossing the road at right angles; over this the rebel troops made their appearance, stopped a few minutes, and then moved down toward the bottom of the hill, and formed across the road. On their right was a company of infantry composed of very young men and boys, under the command of old Mr. Maverick; next to them was a battery of six six-pounder guns under the command of Lieutenant Machlin, who had been dismissed from my regiment for having his safe robbed too often when it contained government funds. Next to the battery, to the left of it, was a large body of infantry, 800 to 1000, and on their extreme left was a regiment of cavalry of about the same strength. Up on the top of the ridge a good many coaches and private conveyances could be seen, and over the ridge from us the rebel train was parked. My company was formed with its left resting on the road that ran through our, and the rebel lines. Soon after the rebel line was formed two officers, Jack Wilcox, a former member of Congress from Mississippi, and Lieutenant Majors, an officer who graduated in '56, had resigned from the Second United States Cavalry and joined the Confederacy came forward. Majors was, I believe, from Missouri, and had recently distinguished himself in an Indian fight with Van Dorn, in which he was said to have killed three Indians himself. Van Dorn was also a graduate and major of the Second United States Cavalry, a Mississippian, and a friend of Jefferson Davis. He had been appointed to the command of the rebel troops in Texas.

The two officers, Majors and Wilcox, were at that time serving as aides to Van Dorn, and they came up the road, one of them carrying a drawn saber on which a white handkerchief was tied as a flag of truce; they rode up at a gallop, and were very much excited, pale and nervous; they approached me and asked where the commanding officer of our party was. I told them he was at the house, and they rode immediately to it, without recognizing me. They entered the house and met Colonels Reeve and Bomford, and Captain Blake was soon called in, they being the three senior officers of our command. Wilcox and Majors soon came out and joined our officers, who were seated under a tree near the house. They then recognized me for the first time, and I told Majors that I was surprised that he did not recognize me when he spoke to me and asked where the commanding officer was, but he said he did not, they were too much excited at that

time to recognize anyone. They told us that they had brought a demand from Van Dorn for the unconditional surrender of our command. They sat under the tree some time, but there was little if anything said on either side. They remained seated under the tree until Colonel Reeve sent for them to the house. He told them that he would not surrender his command on a simple demand and show of force, but must be permitted to send an officer to inspect the rebel troops, to see if they were armed, their number, etc.; that unless he was permitted to do this he should defend the position he held. Majors and Wilcox then mounted, and bearing their white flag rode back to their lines.

Soon after Majors returned, and told Colonel Reeve that he would be permitted to send an officer as he desired. I was sent for by the colonel, and told to inspect the rebels, to find out if they were well armed, if they had ammunition for their infantry and artillery, and to learn the number of men, and their character, etc. I mounted my steed and started down toward the rebel left, accompanied by Majors, and when we arrived at their line we were joined by Joe Minter, another officer of the Second Cavalry who had joined the rebels. He was a civilian appointment. He was also on the staff of Van Dorn. As we passed around the left of their line they continued and carried me up on the ridge, almost as far in rear of their line as I was in front of it when I started.

I told them I could see no more from there than I could from our line, and that I should make no report unless I was permitted to go nearer. Minter replied that I could go no nearer, and I said then I would return to Colonel Reeve. Minter asked me what I was going to report, and I told him that I should report nothing, that I could not see any more than Reeve could, and that he could judge of their command as well as I could at that distance. "Very well," he replied, "then we will fight." I told him that was none of my business, and started toward our lines. Majors rode with me, and seemed to regret that I had not been permitted to go close enough to the troops to make a report. Minter went directly to Van Dorn and spoke to him, and soon came toward us at a run, and met us just as I was going around the left of their line, and said, "General Van Dorn says you may come just as close as you please, and the closer you get, the worse you will like the looks of them." I then turned and rode along within ten feet of the rear rank, and counted the men as well as I could, and looked into the limber and caisson boxes, and saw that there was plenty of ammunition, and plenty of good arms, as we well knew there must be, as they had been in possession of the arsenal at San Antonio for weeks. I saw many men in the ranks that I was intimately acquainted with, and was spoken to by many, but the report that I was cheered as I rode along their lines was incorrect. It was so stated in their papers. I rode along the whole

line, and then returned to the road and passed by the right of the cavalry, and through their line toward ours. As I went by the cavalry, Bill Tobin, who, I believe, was in command of the right company of cavalry, rode out from ranks and asked me if I did not want an escort, and I told him yes, so he took a few of his men and rode with me toward our troops. He asked me if I thought there would be a fight, and I told him I did not know. "Well," he said, "you are a pretty good shot, and you know I am, and if you will agree not to shoot at me if there is a fight, I won't shoot at you." I told him all right, and he rode back to his troops. I reported to Colonel Reeve that there were at least 1400 men well armed, with a battery with plenty of ammunition, and that there was a company of nearly 100 under old Mr. Maverick. I estimated the rebels at about 1800 men all told, but did not want to put too high a figure in my report, as on it all action as to a surrender was to be based, so I reported at least 1400. Minter told me afterward that he issued that morning over 2000 rations, so I presume there were at least 2000 men in line. When I made my report to the colonel, he went in the house with Colonel Bomford, and Captain Blake, and we waited in silence the result of the council. After a while someone came out and communicated with one of Van Dorn's aides, and he returned to his chief. It was not known then what conclusion or what action Reeve and his council had taken, but it was soon known that there was to be no fight, and that there had been some sort of a surrender.

Very soon the people commenced to arrive in carriages. Many of the people expressed sympathy for us, but the majority were glad of our capture. Several ladies rode up in front of Adams' house, on the stoop of which I was sitting with Lieutenant Freedley, and asked for him. Some gentleman called to him, but he did not answer or move, and the man called again, and said a lady wished to see him. Freedley, to show how quickly and promptly he would answer any call from a lady, jumped up and ran to the rail fence that surrounded the front yard, and putting his hands on the top rail attempted to vault over the fence; the rail turned and laid Freedley flat on his back in the road. Unfortunately his horse had been hitched by the bridle-rein to this same rail, and his fall and the turning of the rail stampeded his horse, and he ran with the rail and, swinging it around, struck the stacks of muskets belonging to one of the companies and knocked over many of them, and then ran across the valley to the rebel lines. Freedley, who was a very large man and rather bashful, picked himself up, and with a face as red as a beet made his greeting to the ladies, who had been the unintentional cause of all the trouble. After a few minutes all the people turned and rode toward San Antonio. The army, in the meantime, had marched over the hill and out of sight toward that city. We remained in camp on the hill till some time in the afternoon when we, too, took up our march for that place. Every

one was blue and depressed and had little idea of what was to become of us. After marching a few miles the command was halted at a small waterhole side of the road for the men to fill their canteens and rest, and Colonel Reeve called the command to attention, and told them what had been done: that he had surrendered, and had agreed to march the men to the head of the San Pedro and encamp there till some arrangements could be made for the future. The colonel was very much affected and shed tears, and there were many in the command who showed as much sorrow as he did. All knew that he had done the best and only thing he could do under the circumstances, and to show their confidence in him and their sympathy he was given three cheers, and we marched sadly along to Leon Creek where we encamped for the night.

General Van Dorn was camped in a large tent on the opposite side of the road from us, and in the evening he sent an aide and invited the officers of our command to his tent. We all went and had a few minutes' conversation about the events of the day, but no one seemed to enjoy the visit much, and after an offer of champagne from the general, which nearly all declined, we returned to our camp, and the next morning marched into San Antonio, and to the head of the San Pedro where we went into camp, and waited the next move on the board. We heard afterward that the troops who went out to capture us had a very hard time of it. They were taken from their business and organized for the occasion, and of course none of them were prepared for a march of fifteen miles to Adams' hill, and they became lame and foot-sore, and had to be hauled back to town in wagons, some of them did not reach the city till next day, and all were nearly used up. Van Dorn in his conversation said that he had gotten together as large a command as possible in order that there might be no question about the propriety of the colonel's surrender, and to put all thoughts of a fight on our part out of consideration. The troops of the United States had all left the other posts long before we came down. Fort Clark and Fort Duncan had been turned over to the rebels by orders from the Department Commander, General Twiggs, and all had left the State. The lower posts on the Rio Grande were occupied by rebel troops, and were not abandoned by them until much later, but the posts along our line were abandoned within a few months after we turned them over.

We soon learned in San Antonio of all that had taken place, that Sumter had been fired on, and that there had been some skirmishing at other places, all of which was entirely new to us. We had been without mails for a month or two, and of course had no means of learning anything of what had taken place in the States. As soon as the agreement was entered into by General Twiggs and the Texas commissioners, all troops near San Antonio were ordered to the coast to take transportation to the North, and some of them went out un-

molested by the rebels. In April, or the latter part of March, Colonel Waite had been sent from the North to take command of all United States troops and try and get them out of Texas. He was very quietly captured by the rebels, with all other officers who were with him in San Antonio at the time. They said they would not surrender on a simple demand; so troops were marched there to their offices, and they surrendered. If Waite had been sent there early in February with power to supersede Twiggs, perhaps he might have done something, but he came too late, but got there in time to add his name to the list of the captured in Texas.

The success of the rebels was due in great part to the fact that we were acting in good faith, carrying out the orders of the Department Commander, and, we supposed, the wishes of the Government at Washington, while the rebels were using those orders and agreements as a blind to entrap us, and only following them so far as they suited their purpose. Whenever they thought best to depart from the agreements entered into they did so, and their excuse afterward to us was that the state of affairs had changed, that Sumter had been fired on, hostilities had been commenced by the North, and that agreements made before these events were not binding on them. When one remembers the extreme caution practiced by the authorities at Washington at this time, or just before, so as not to commit any act that could be twisted by the South into an act of hostility or bad faith, they can understand how delicate the situation was for commanders in the South, on whom so much responsibility was thrown. If Colonel Reeve had made a fight the result would have been just the same, as far as the troops were concerned, for we could not have whipped 2000 men with our small party, and even if we could have done so, we were out of rations and ammunition, and 3000 miles from home, without transportation by water if we could have reached the coast; and had an uninhabited country behind of 1000 miles in extent that we should have had to cross before we could have reached a place of safety. Any thought of fighting, with the thought of getting home, would have been absurd, and the only chance in favor of fighting was that had we been intrenched and had ammunition we might, by a strong resistance, got more favorable terms for the survivors. As the situation was for us, I have no idea that there was a man in the United States that would have done any differently than Colonel Reeve did. We were captured on the 9th of May, 1861, and marched into San Antonio the next morning, May 10th, with drums beating, and would have had colors flying if we had any, but they were with the headquarters of the regiment, and were concealed and saved by Sergeant Major Wilson, who was afterward a lieutenant in the Eighth.*

*WILSON, JOSEPH K., Priv., Corpl. and Sergt. Cos. A and B, and Sergt. Maj. and Q. M. Sergt. 8th Inf., 9 July, 1844 to 7 Sept., 1853. Ord. Sergt., 7 Sept. 1853 to 9 June 1854. Sergt. Major 8th Inf., 15 Dec. 1855 to 7 May 1863. 2d Lieut. 8th Inf., 7 May 1863. 1st Lieut., 19

APPENDIX

HEADQUARTERS DEPARTMENT OF THE GULF,
NINETEENTH ARMY CORPS.GENERAL ORDERS,
No. 34.

OPELOUSAS, April 25, 1863.

Sergeants Brady, Stapleton, McCormick, Reinhardt, Sheble, Neal, Harris, Darken, Brannan and two hundred and sixty-nine men of the Eighth Infantry, Army of the United States, whose names are affixed, having been exchanged by the rebel government, whose prisoners they were, arrived at New Orleans on the 25th of February, 1863, and a portion of them under command of Lieutenant Copley Amory, Fourth Cavalry, reached this post on the 23d instant, to share with us the honors of this campaign. It has been deemed but an act of justice to these gallant men to relieve them from this service and to expedite their return to the North. They separate from the command this day. In honor of their departure, the commanding general has ordered a national salute and a similar honor will be paid them at their departure from New Orleans. Captain Bainbridge, at Opelousas and Brigadier-General Sherman at New Orleans, are charged with the execution of this order. * * *

Separated from their officers, divided into squads and removed to different posts on the frontiers of Texas, deprived of pay for more than two years, they were subjected to degrading labors, supplied with scanty food and clothing, and sometimes chained to the ground or made to suffer other severe military punishments. Recruiting officers visited them daily, offering them commissions and large bounties to desert their flag. Notwithstanding the false reports of the overthrow of their government, which seduced so many men of higher pretensions and position, unsustained by counsel with each other, with few exceptions they repelled the bribes and avoided the treason. Those who chose a different course, did it to escape their prison.

No government had ever more loyal supporters. * * * Not a soldier nor a sailor voluntarily abandoned his post.

Soldiers! let the gallant men that part from us to-day receive the honors they deserve! Let them hear the peal of cannon and the cheers of the line! Let them receive, wherever they go, the homage of the army and navy together—the army and navy forever!

By command of Major-General Banks:

RICHARD B. IRWIN,
A. A. G.

Roll of Detached Battalion of the Eighth Regiment of United States Infantry, who were received from the rebels as exchanged prisoners, at Baton Rouge, on the 25th day of February, 1863:

Company B.—Michael Brady, first sergeant; Robert Harris, sergeant; Edward R. Jones, corporal; Lemont Kincaid, corporal; Peter Ennis, musician; James M. Hardin, musician. James Brown, Thomas Burke, Joseph Byrne, John Cullen, Wilber A. Daniels, James Eldridge; Louis Fisher, Otis H. Francis, Charles M. Goodfellow, Patrick Heffernan, David M. Hinman, Thomas F. Harley, Isaac Hucton, William Jones, Bernard Lyons, John F. Myers, Charles G. Miller, James Morris, George A. Munch, Owen Murray, James McKinsey, Patrick O'Brien, David Rankin, Bernard Roe, George Reinhardt, sergeant *Company G*, attached; John Lee, *Company H*, Third Infantry, attached.

Company C.—John Clark, corporal; Albert Arnold, Co. I, First Infantry, attached.) Schelbert Baptiste, band, attached; Joseph Carpenter, John Furnley, band, attached; Daniel Kane, Francis Kinsley, band, attached; Fred. Crosbridge, band, attached; James Lamb, Thomas Loftus, Frederick Maroney, John McGwiney, Thomas McKee, Michael McNallis, William J. Moore, Edward Morfat, Frank Nestor, John O'Maley, Mead Patberry, Louis Rust, band, attached; George Switzell, band, attached; Wm. H. Andrews, Co. G, attached; Michael Byrnes, Seventh Infantry, attached; James Burgoine, Seventh Infantry, attached; Peter Campion, Seventh Infantry, attached; Patrick Carter, Seventh Infantry, attached; Anthony Fitzpatrick, Seventh Infantry, attached; James Johnson, Seventh Infantry, attached; Joseph Owens, Seventh Infantry, attached; Jacob Clingfins, Patrick McAlair, Christian Moser, band, attached; Reid A.

July 1866. R. Q. M., 10 March 1868 to 19 Sept., 1869. Bvt. 1st. Lieut., 30 July, 1864, for gallant and meritorious service in an assault on Petersburg, Va. Died 18 Sept., 1869.

Lieutenant Bliss was a prisoner of war until exchanged April 4, 1862. He was appointed colonel of the Tenth Rhode Island Volunteer Infantry in May, served with that regiment in the Defenses of Washington, and was recommissioned colonel of the Seventh Rhode Island Volunteer Infantry in August, 1862. [Editor.]

Christian, Mahlon H. Sheldon, Stephen Swarts, Co. I, First Infantry, attached; Abslaom Conran, Co. G, attached; Joseph Kelley, Hiob Neher, band, attached.

Company E.—George F. Darker, sergeant; Peter McDonald, corporal; Alonzo Blake, corporal; Peter Blumenburg, corporal; Henry Connelly, corporal; George Collins, corporal; Chappin Channing, William Cobb, Joseph Carpenter, John P. Dowd, Peter Dwyer, Edmond Dwyer, Conrad Evers, William B. Farris, James Graham, William Howland, Nicholas Hofins, Lawrence Hilton, George Huck, David Hahn, Frederick Henry, Francis Hamburger, Charles A. Long, Patrick Lynch, Neal B. Mullen, Hiram Marsh, John Murphy, Thomas Murray, James S. Neill, John O'Connell, 1st.; John O'Connell, 2d; William Palmer, John Price, Louis Poret, James Reynolds, Michael Ryan, Timothy Redman, Ralph I. Squires, Charles Smith, Robert Smith, John Saunders, August Vander Hyde, James McDonnell.

Company F.—Christian Nagell, sergeant; James Brown, corporal; Edward McDermott, Patrick Connelly, John Dunn, Michael Finlan, John H. Farris, Wm. H. Finch, Andrew Flinn, Henry A. Gardinier, William Hays, Peter Kelley, Thomas Kelley, James Lererie, Patrick McGlinn, Henry Miller, Charles Miller, George Morrisy, John Murray, James McClasky, James McNally, Thomas McNamara, James Riddell, Peter Rochford, Carl Shurig, Henry Semore, James H. Smith, John Tucker, Michael Timpson, Anton Warsaw, Patrick White, Daniel Wheeler, John B. Ward, Francis Watt, George Wolfangle, Andrew Govelbrad.

Company G.—Patrick Barnes, attached; James Biggins, attached; Robert Carson, attached; Peter Gilhooley, attached.

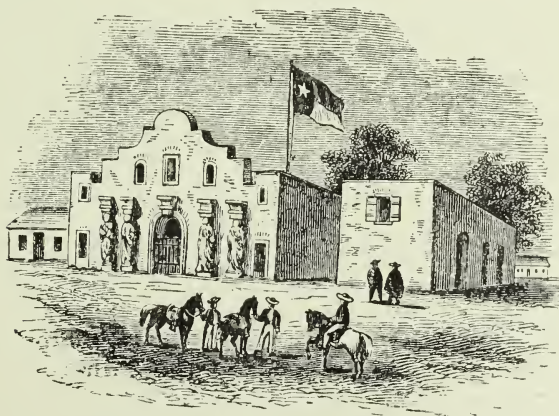
Company H.—Andrew Bruner, sergeant; William Rose, corporal; Charles D. Lyon, corporal; Alfred Miller, musician; John Brown, private, Michael Connelly, Thomas Connelly, Thomas Cooney, Redman Dillon, Max Driffus, Herman Faul, Edwin Fivey, John Goehgen, James Graham, Menzer Green, James Hendricks, George Holland, Henry B. Hutchins, Patrick Kelleher, Daniel Kelly, Patrick Kenny, Mathew Kenny, Edward King, James Kirby, John Larry, Joseph Linton, James C. Lintre, Patrick Lyden, Thomas McDermott, William H. McKim, John McMahan, William Murphy, Henry Nolan, Patrick O'Mara, Christopher Peters, John Rafferty, Cornelius Ryan, James R. Scarf, Elias Shipman, Daniel Walsh, August Wagner, James Wright, Samuel Russell, Michael Stapleton, first sergeant, Co. G., attached; Hugh Gorman, private, Co. G, attached; Patrick King, Co. G, attached; John Knox, Co. G, attached; Charles Mann, Co. G, attached; Mathew McBride, Co. G, attached; Albert Muller, Co. G, attached; David Norris, Co. G, attached; Joseph Norris, Co. G, attached.

Company I.—Robert McCormick, sergeant, Co. G, attached; Patrick Burns, corporal, Co. C, attached; John Ingle, corporal; Terence Sheeny, corporal; Adolph Ekert, musician; John Stubbens, musician; Ernest Buchner, John Miller, Richard Boyd, William Casey, Edward Cully, Edward Commerford, John Cannon, attached; Timothy Divine, Charles Ebel, Arnold Freese, Francis Gallagher, Patrick Gallagher, Charles Goldsmith, John Hank, William Haley, Joseph Horey, Martin D. Wirt, John King, James Kennear, John Lynch, John McCormick, attached; William McKim, John Miller, Michael D. Moynihan, John Miller, Edward Murphy, Julius Oberer, Edward O'Brien, William Rea, Martin Reredan, George Rudloff, James Smith, John Williams.

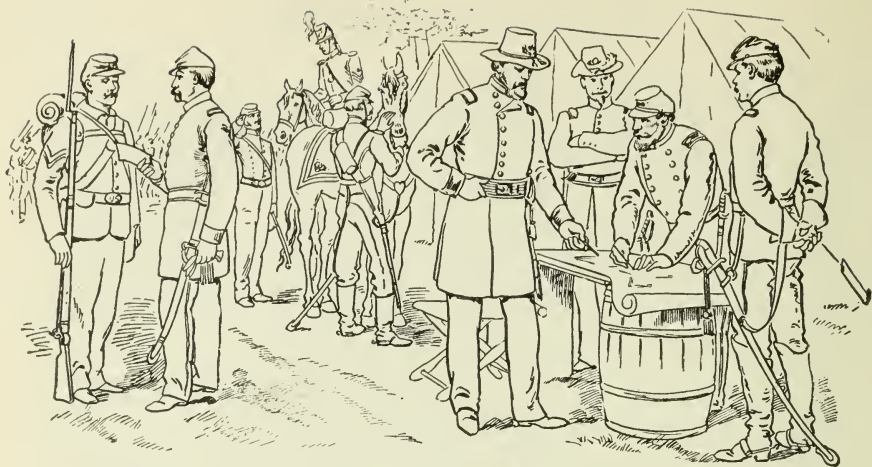
Company K.—Henry Shibble, first sergeant; Kyron Brennan, sergeant; George Brown, corporal; James Benson, corporal; Joseph E. Tyler, corporal; James Leadon, musician; Michael Barry, Jacob Beter, Calvin M. Boughton, Robert Burris, Dearack Emwold, Siegfried Glass, Francis Kerney, Charles Linguist, Horatio Lee, Charles McCarthy, John Malone, Henry Manner, Jacob Rohn, John Robbison, Charles H. Scott, Michael Shea; James E. Savarage, John Williams Anon Waterhouse, John E. White, Martin Zigler.

CHARLES S. FASSETT,
SECOND LIEUTENANT SIXTH MICHIGAN VOLUNTEERS.
COMMANDING DETACHMENT EIGHTH INFANTRY.

U. S. Barracks, New Orleans, La., May 2, 1863



THE ALAMO.



Comment and Criticism.

Does The Enlisted Soldier Need "Regeneration?"

Colonel Stephen C. Mills*, Inspector-General United States Army.

In the January number of the *International Quarterly* the place of honor is occupied by an article entitled "The Regeneration of the Enlisted Soldier," by Col. Charles W. Larned, who has been since July 25, 1876, Professor of Drawing at the United States Military Academy.

The *International Quarterly* is a scholarly, dignified publication, well edited, which has, in addition to the ordinary editorial staff, an Advisory Board, which contains among its members men celebrated in the domain of History, Art, Literature, Science, Medicine, Biology, International Politics, etc., the use of whose names as an Advisory Board, we are informed, is not merely formal and honorary. It follows that readers of the *International Quarterly* feel that in the articles presented to them they are obtaining the views of those best qualified to speak on the subject matter in hand, and that a contributor to this magazine is generally regarded as an expert on the subject of which he writes. In the case of the article in question, this impression that the author is an expert is strengthened by the title "colonel," which precedes his name in the caption of the article, and by the description given of him in the list of contributors, viz: "Larned, Charles William, Army Officer, Educator, Professor Drawing United States Military Academy and Colonel United States Army

*Official Army Register shows: "MILLS STEPHEN C. Inspector-General and Colonel Cadet M. A., July '73; add. 2d lt. 17th Inf. 15 June '77; 2d lt. 12th inf. 30th June '77; 1st lt. 28 May '84; Capt., 16th Dec. '94; Maj. insp. gen., 24th July '98; lt. col. insp. gen., 1st March '01; Col. insp. gen., 12th Apr. '03. [Editor.]

since July 25, 1876; Member Architectural League of New York, Society of American Wars, Seventh Cavalry Mess, West Point Army Mess, author 'The Great Discourse,' contributor to magazines on art, military and religious subjects."

As this article appears in a magazine of high character, circulated among the thoughtful, studious portion of our reading public, and as its author is credited with the experience which forms an expert, those persons reading the article who are unacquainted with our army will undoubtedly accept the views herein expressed regarding the character of our enlisted men, the method in which they are obtained, the class from which they come and the ultimate results on a man of service in the ranks of the United States Army of the present day, as a correct representation of the conditions as at present existing. That this acceptance of Colonel Larned's views will be taken one needs only to go to the issue of the New York *Evening Post* of Saturday, January 20th to prove. In an editorial devoted to the subject of the "Changing View of Armies," we find Colonel Larned's qualifications for forming an expert opinion taken without question, and his statements accepted as facts. When this immediate acceptance of the views of Colonel Larned is taken by a newspaper, which is presumably in the habit of weighing the authority for matters of which it makes editorial use, we must expect that the ordinary reader of the magazine in question will receive these views, statements and inferences as presenting an accurate representation of the present conditions of the enlisted personnel of the United States Army. Any question as to the correctness of the opinions they have thus formed will be met by them with the statement that these facts appeared in an article written by a colonel in the army, and are therefore beyond doubt.

To the average civilian military titles and positions have limited and definite application, and when used bring to mind certain conditions. "Captain" means a man who commands a company, presumably 100 men, engaged in war-like operations. A "colonel" is one who commands a regiment, and whose business in life is the control, management, discipline and command of a one thousand men. That there are "colonels" who are lawyers, "colonels" who are doctors, "colonels" who are business men in various capacities, and "colonels" who are professors at the Military Academy, and that these "colonels" may and do go years without any direct associations with or personal knowledge of the enlisted men of the army at large is entirely beyond the knowledge of the average civilian. A colonel is to them a soldier whose views on military matters are entitled to the respect which attends the utterances of one who by long and intimate association with a technical subject has acquired the right to speak thereon. That this is the view of the average civilian is patent

to anyone who has ever taken the trouble to discuss military affairs with his civilian acquaintances.

We of the army must expect, therefore, to be called upon to answer for the presentation which Colonel Larned makes of the condition of our enlisted strength to-day.

Criticisms of actions and statements of unsatisfactory conditions are usually made in one of two ways or in a combination of the two. The first consists of generalization in which the author condemns, *on his own authority*, the work performed or the conditions existing. The value of this kind of criticism lies of course in the personal capacity of the critic. If he is qualified to judge the work, and establish its relative value, the criticism is of value. If not, the criticism becomes simply the author's view or opinion as the case maybe.

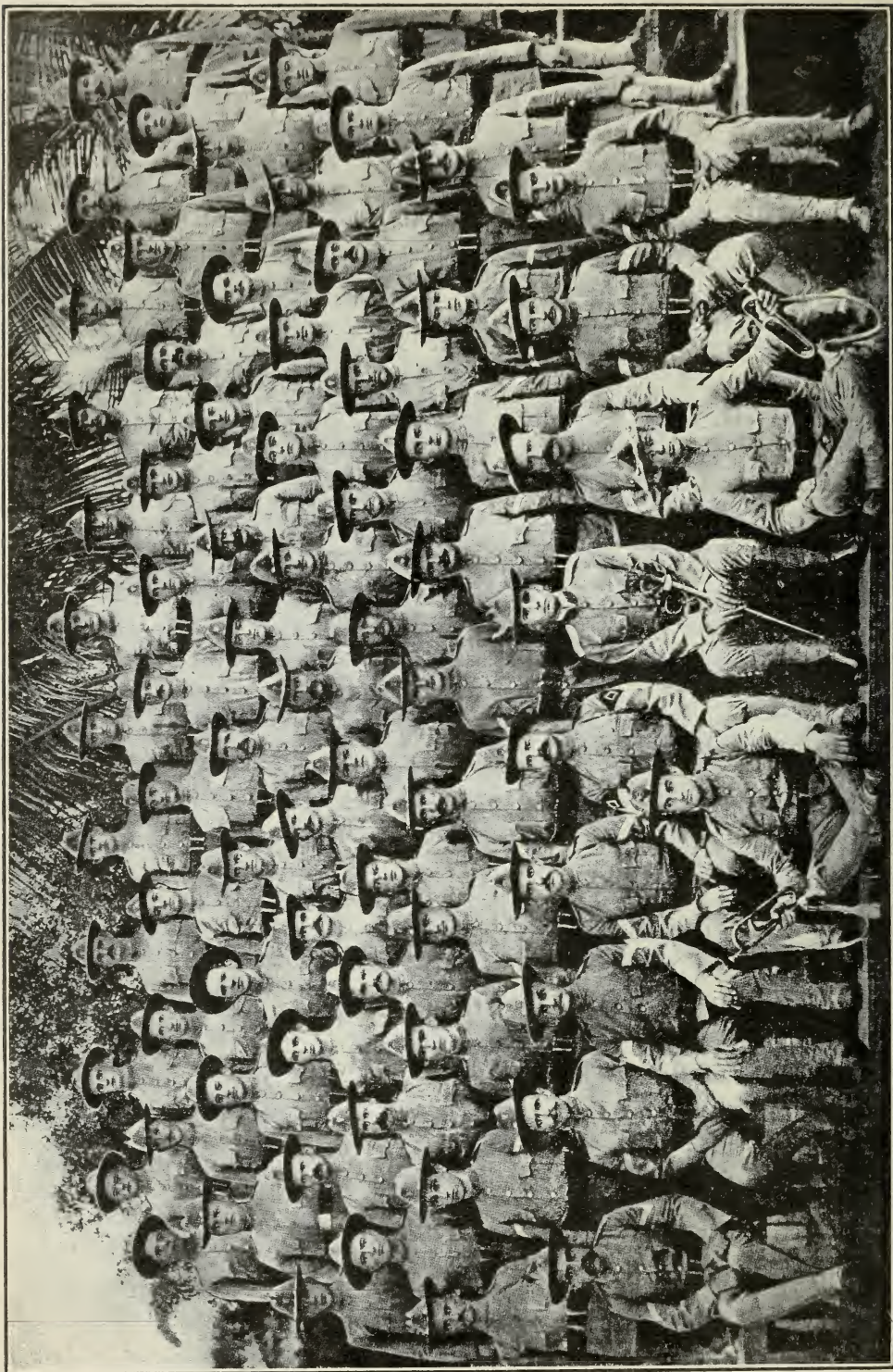
The other form is the statement of definite instances of work improperly performed or not performed in the manner best calculated to produce the required result. This method can be judged on its merits by the verification of the facts in the case.

Colonel Larned's article is a general presentation of his views on a particular subject, involving many specific statements as to the enlisted strength of the United States Army. It becomes, therefore, a question, first, as to Colonel Larned's qualifications to speak with authority as to what is the present condition of our men.

The United States Army is composed of many units of organizations scattered over the United States, the Philippines and Alaska. The great bulk of the enlisted strength is in the various battalions, regiments and companies of the engineers, cavalry, artillery and infantry. They are serving under a variety of climatic, social and military conditions. To know what these men are and the effect upon them of the service there must be a personal knowledge of the actual conditions in a large number of localities and under many varieties of service demands.

What has been Colonel Larned's opportunity of acquiring this knowledge? Turning to Cullum's Register, we find that Colonel Larned graduated from the Military Academy in 1870; he joined his regiment, the Seventh Cavalry, sometime in October of that year, and served with it until June of 1871—eight months. He then took advantage of a leave of absence until February, 1872, when he again joined his regiment and served with it until September, 1873, when he again went on leave. Then he was on detached service at the War Department, and at West Point as an instructor in drawing in June, 1874, and he has remained on duty at West Point ever since, having been appointed Professor of Drawing on July 25, 1876.

Colonel Larned belonged to the line of the army six years and one month, of which time he spent about fifteen months on leave of absence, about thirty-one months on detached service, and about twenty-seven months on duty with troops. In other words, during



TYPES OF THE AMERICAN "REGULAR" OF TO-DAY.

Co. H, 20th U. S. Infantry—Hdqrs. Guard, Philippines Division, Manila, P. I.

the years of 1870, 1871, 1872 and 1873, there were twenty-seven months during which Colonel (then lieutenant) Larned might by virtue of his official position have become acquainted with the personal character, habits and attainments of the enlisted men of the army, and observed the effect upon them of service in the ranks.

It does not appear from the official records that Colonel Larned ever acted as a recruiting officer, or occupied any official position that would enable him to speak with authority on the subject of how or from what class our army is recruited.

Since September, 1873 his duties have been such that he has not been thrown into personal relations with enlisted men, other than the possible janitor or watchman assigned to duty at the drawing academy at West Point. He has had, by virtue of his station, an opportunity to observe the enlisted men of the company of engineers, the cavalry detachment and the service detachment stationed at West Point. These organizations are exceptional ones, enlisted for special purposes, not subjected to the ordinary service conditions and in no way typical of the ordinary company organizations of the army at large.

As Colonel Larned's duties with the line of the army terminated almost a third of a century ago we may, I think, question his authority to speak as an expert on matters relating to its enlisted personnel, without in any way reflecting upon his devotion to his own duties or his capacity therefor. That such question will come at once from all officers who know, appreciate and understand the enlisted personnel is certain.

Colonel Larned in his article assumes a state of affairs in regard to the enlisted personnel of the army and its military value which we will let him state. Colonel Larned says: (see page 193 *et seq.*)

Is the army to rely upon the drifting and uncertain body of the unemployed, social failures and tramps, fluctuating in number according to periods of commercial distress or prosperity, and hired for the national service at a wage less than that of unskilled labor in prosperous times? Is it to offer its service as a sort of forlorn hope for the desperate, and a last resort for the poor devil who is down on his luck, or the ne'er-do-well runaway from home? In the service is to be found arbitrary restraint, irksome subordination, tedious iteration of maneuver and periods of inaction without freedom. Furthermore, the peace service presents no future that attracts—only the uncertain warrant of a "non-com" with a slight increase of pay, and the vague possibility of a commission. It is urged that it offers a certainty of a living—a bare competence which offsets the uncertainty of civil opportunity and freedom. But this is just what does not appeal to the young man of energy and individuality. It appeals only at the period of young manhood to the lazy and inefficient, and its attractions generate only the "old soldier" of the barnacle type. With only these motives and minus the frontier, it is quite certain that the country will get a poor return even for the meager investment it makes. It will get perfunctory, inexpert, restless service. The per-

centage of desertions will continue to increase, which tendency is in itself a demoralizing and corrupting influence; discipline will degrade into a police matter with resentment as its spirit; and except in times of depression recruiting will be unable to fill the vacancies and for the maintenance of its military peace establishment the great republic will be confronted with the unpleasant alternative of conscription.

On page 199, in speaking of his proposed remedy, he says:

It would entirely change the grade of the enlisted personnel—the lazy, the vicious and the illiterate would be excluded. Instead of demoralizing his energies and rendering him unfit for steady work in civil occupations military service would restore him (the enlisted man) to civil life improved and developed mentally, morally and physically, an orderly and conservative element in society.

On page 204, speaking of the pay of the army, he says:

It is a much cheaper proposition for us to give high pay to an army of 60,000 which is capable in ten years of returning to civil life a body of between 50,000 and 100,000 men, competent for junior commissions and non-commission warrants in our volunteer levies than to pay half the sum for the reluctant service of a relatively low grade of automatic soldiers, who either leave the army with little more intelligence than they brought to it, or else remain until retirement military petrifications—dull, faithful and inert.

And then he tells us what an army should and should not be, as follows:

The army should be a vigorous, effective engine for the manufacture of competent soldiers, working hard all the time to improve its product, and grinding out a steady stream of graduates. It should not be a dull body of reluctant military day laborers, hired for temporary work, useless to society and themselves after the stupefaction of a few years' routine.

On page 207, Colonel Larned says:

The country, instead of looking askance upon its army as a useless burden in time of peace, whose individuals are undesirable neighbors in a community and worthless to her industrial system after discharge, would find an enduring pride in it as one of the most valuable corrections to the modern habits of thought and living and the demoralizing influence of an excessive commercialism.

The above quotations from Colonel Larned's article must be accepted as presenting his views of our present enlisted personnel, and its value as a military factor. His plea is for the regeneration of the enlisted soldier. Regeneration means to produce anew; in theology, "A radical change in the spirit of an individual." Presumably it was the theological definition Colonel Larned had in mind when he chose the title of his article.

If his statement of the case is correct; if our army has been relying upon the "drifting and uncertain body of the unemployed, social failures and tramps"; if it is the "forlorn hope of the desperate, and a last resort of the poor devil who is down on his luck and the ne'er-do-well runaway from home"; if our enlisted men are a "dull body of re-

luctant military day laborers, hired for temporary and perfunctory work, useless to society and themselves after the stupefaction of a few years' routine"; if the product of our system is "the reluctant service of a relatively low grade of automatic soldiers who either leave the army with little more intelligence than they brought to it or else remain until retirement military petrifications, dull, stupid and inert."; if Colonel Larned is right, if this is a truthful description of the enlisted personnel of the United States Army; if this is the resultant product of the operations of the military machine in time of peace, I will agree with Colonel Larned that the enlisted soldier needs regeneration. I will go further, and in addition to advocating the regeneration of the enlisted soldier, I will join in an effort for the abolition of the commissioned officers whose failure to properly perform their duties has produced this result. The enlisted soldier is what his officer makes him, and if Colonel Larned has correctly described the product, the sooner the officers are stripped of the uniforms they have disgraced, the better for the country and the service.

Is Colonel Larned correct? Can his statement be accepted? Does he know whereof he speaks? Has he the knowledge requisite to justify his conclusions? Has he made a study of the enlisted man of our army?

I have already given a statement of Colonel Larned's service with troops, which is the test used the military world over to justify the claim to speak with authority on the personnel of troops.

We have seen that Colonel Larned spent a total of twenty-seven months on duty with troops, the last month of which was almost a third of a century ago. Evidently it is not by personal experience that he has acquired the right to crucify the enlisted man before the reading public, and exhibit him as a military petrification, dull, stupid and inert, useless to society and to himself after the stupefaction of a few years' routine.

Has Colonel Larned made use of any other means to learn the status of our enlisted men; has he studied such data as is at hand to know from whence our men come; how they are used, trained, and treated while with us and what shape they are in when they leave us?

When you speak of the characteristics of a large body of men you must generalize. Colonel Larned has done so, and we have his views.

General reputation and character is the consensus of opinions formed by those having opportunities to associate with or learn of the personal qualifications of the person or persons involved. As against Colonel Larned's opinion, let the officers of the line of the army, and the staff-officers, the nature of whose duties brings them into direct personal contact with the enlisted force, present their views.

The enlisted men of our army are little known and less cared for by the country at large; they are as a rule a quiet, intelligent, self-re-

specting body of men. They are imbued with strong ideas of doing their duty, as they see it, and obeying orders wherever those orders may lead. They understand the technique of their business, so far as it relates to their own immediate or prospective duties as well as the average employee in any business using a similar number of men. They have a very clear view as to their position, its duties, rights, privileges and its disadvantages. Where re-enlisted men are concerned the majority of them are in the service because they like it and are satisfied with the inducements held out. Their personal habits and behavior are better than in the corresponding circles in civil life. They are not perfect, and their vices are those of their environment. They are comparatively young, strong-bodied, vigorous, active men, well trained in their duties. They are not the "boys" of volunteer gush, nor the automatic military machines Colonel Larned evokes from Potsdam and the army of the great Frederick. One of their distinguishing characteristics is that they never talk back, nor attempt to justify themselves in the public prints. They are accustomed to being misjudged by popular opinion, and long ago gave up expecting to be understood, appreciated or fairly treated except by the officers who serve with them, and whose lives and duties, hopes and fears, rewards and punishments are bound together with their own.

They have been much written about in various ways, and have formed the basis for many a half-fledged, prematurely born literary effort. The vagaries of the anti-canteen crank, the hysterical shriekings of the rabid anti-imperialist, and the mouthings of the frothy demagogues who have attempted to wield the power of the lawless mob, and found their progress checked by the strong arm of the law, have occasionally taken the form of wholesale abuse of the enlisted men of the United States Army and entire misrepresentation as to their habits, manners and lives.

It is, however, to be doubted if in the entire range of inaccurate, misleading, unwarranted talk about the United States Army there exists another generalization in regard to the enlisted men thereof, which is so entirely at variance with the facts in the case, as is this plea for the regeneration of the enlisted soldier, submitted to the reading public by Col. Charles W. Larned of the United States Military Academy.

I queried as to whether Colonel Larned has made use of the means at hand, other than personal associations, to learn about our enlisted personnel. Let us examine into this a little in the light of some of his statements.

It has long been well understood in the line of the army that the duties of a professor at the Military Academy were not such as tended to keep the occupants of those highly dignified positions acquainted with the actual workings of the military machine, nor familiar with

the practical details which go to make up an army. So long as these gentlemen remained outside the domain of military organization this ignorance on their part was natural, expectable and of no importance one way or the other. It is, however, something of a shock to find that a study of the instructions for recruiting officers is apparently not regarded by one of these professors as a condition precedent to a discussion of the subject of the results of our method of enlistment. Colonel Larned is apparently ignorant of the first principles of recruiting duty, as practiced in the United States Army, since he talks about our army depending on the "drifting and uncertain body of the unemployed, social failures and tramps." It appears he has never heard of the probationary period for an applicant for enlistment, and the duty of a recruiting officer in regard to verifying the former status, occupation and character of applicants is to him evidently a sealed book.

Colonel Larned proposes a system which he says will "entirely change the grade of enlisted personnel—the lazy, the vicious and the illiterate would be excluded." As regards "the lazy and the vicious," such of them as enter the service now do it because the recruiting officers are not able to detect them as they apply for enlistment; and Colonel Larned does not tell us how this will be remedied by his system. When the lazy and the vicious who pass the scrutiny of the recruiting officer have demonstrated these qualities to the satisfaction of their company commanders, resort is now had to various approved methods with a view to the elimination from the service of these undesirable factors. We cannot entirely exclude, but we can and do eliminate, as a study of orders would have shown Colonel Larned.

As regards the "illiterate"—illiterate, is defined as "having little or no knowledge of book learning; unlettered, uneducated." In census statistics, specifically, "unable to read." In common parlance "illiterate" means one who is unable to read and write. Colonel Larned presents a plan to exclude the illiterate from the ranks of the army, ignorant, apparently, of the fact that the enlistment of illiterates has been forbidden for years.

From the pathetic picture which he draws of the future when the Great Republic will be unable, save in time of commercial depression, to fill the ranks of its army in time of peace except by conscription, let us turn for comfort to the record of the last three years, a time certainly of great commercial prosperity, and during which the number of men accepted as compared with the number of men applying for enlistment has been under twenty per cent. There seems to be no immediate danger of a call for conscription to fill the ranks of our army in time of peace.

Colonel Larned exhibits the same lack of accurate information when discussing his proposed pay table and the scale of equivalents of compensation. On page 200, he allows twenty cents per diem

for the ration. I assume he was thinking of the cost of the ration to the government; certainly he did not have in mind the equivalent for the meals served the average enlisted man in the United States Army under peace conditions, that is, if he knows what those meals are. If not, it is suggested that he correspond with one hundred company commanders chosen by lot and ask them to furnish him certified copies of the bills of fare of the companies under their command for any week of the year, and also certified abstracts of the expenditures from their company funds for any month of the year. He will then begin to be able to form an approximate idea of the food supplied to the enlisted man, and its money equivalent to a man who pays for his board.

Corresponding means of information should be resorted to before he classes medical attendance of no assignable advantage to the unmarried man, and states that it may be neglected (see page 201). Did he ever hear of workmen who lost their jobs because of illness or accident? or see the workings of the average free dispensary and hospital, or consider the time taken and distance covered in order to reach them when not house patients? Has he heard of convalescent patients turned out before they had regained their strength and were fitted for work once more? Our enlisted men do not all come from the cities in which free hospital service is available.

On what intimacy of knowledge does he base the statement (page 201) that "the shelter given by the company barrack squad room is not high class or attractive, and with its disciplinary restraints and compulsory hours ranks in the eyes of most men on a par with city lodging-houses and police stations. Equally good can be secured for twenty-five cents per diem or less * * *." Did he ever see or hear of the permanent barracks with their large, airy, well-lighted squad-rooms, lavatories with hot and cold water, shower and tub bathrooms, sanitary closets, amusement and reading-rooms that are the rule in our established posts? If he cannot visit some of the posts in person, he might correspond with the Quartermaster General, who, I have no doubt, will be glad to lend him copies of the plans and specifications for barracks. How about the gymnasiums, bowling alleys and reading-rooms, with free magazines and newspapers, which are a well-recognized feature of post administration? They are there, right at hand, they are the soldier's to use as he sees fit. Has Colonel Larned ever seen or heard of company libraries and billiard-rooms, with their comfortable chairs and means for games?

Nobody, I suppose, ever wrote with an eye to reforming the United States Army along the lines of his own particular fad, who did not talk of "the dullness and monotony of ordinary garrison routine"; "the sense of restraint and inferiority"; "the lack of steady and sufficient employment all the time" and the "tedious iteration of maneuver." This is the stock phraseology for such cases made and pro-

vided, and its use is always an inverse ratio to the actual knowledge of the conditions of army life, as compared to the lives of other people who earn their living by work.

With a somewhat extensive acquaintance with the ordinary fields of labor, I know of none in which the "tedious iteration of maneuver" is not found. Ask the railroad engineer at his throttle, the carpenter at his bench, the clerk at his desk, the iron and steel worker in his mill, the cowboy riding herd, or the farmer in his fields, about the daily variety of their work. See what these men, or any others who work for a wage, have to say about the "tedious iteration of maneuver" before you hold it up as a specific drawback to the army service. Does the professor of drawing still spend the hours from two until four, five days in a week, in the drawing academy, and if so, how does he feel about it himself? Is "the dullness and monotony of the ordinary garrison routine" any different from the common lot of people who do the same work anywhere, day in and day out, month after month? Is the "sense of restraint and inferiority" any greater in the army than in, say, the railroad business? Are orders any stricter, unhesitating obedience any more required, or the gradations of rank more sharply fixed? As to the lack of steady and sufficient employment all the time, let Colonel Larned consult orders establishing the routine of drill, gymnastics, small-arms practice, police duty and schools which govern in our army posts and then show us the lack of sufficient employment; the army authorities will do the rest!

Colonel Larned's solution of the problem he states is before us is to raise the pay, and make the army a school.

As to the pay, his idea is right. Our enlisted men are not paid as well as they should be. Non-commissioned staff-officers, regimental non-commissioned staff-officers, first sergeants and sergeants are worth much more than they receive now, and their pay should be increased. A good (and there are very few poor) post quartermaster-sergeant, commissary sergeant, hospital corps sergeant or sergeant of engineers is worth more to the government, day by day, than the average second lieutenant. The sergeant is at the culmination of his military efficiency—the second lieutenant is beginning his career. You should pay the sergeant for what he does, and the second lieutenant for the potentiality of work and future efficiency he represents. The pay of privates and corporals is too low now, since like all army pay it was established to suit an entirely different scale of living in the community at large.

An increase in pay to make the remuneration of the enlisted man adequate compensation for the service he renders is much to be desired. In establishing the scale of pay fair valuation for his allowances, retired pay, and the certainty of support and comfort in one of the soldiers' homes when old age or disability incident to the service overtakes him should be considered. As Colonel Larned says

his pay table is little more than a suggestion, and does not pretend to be a studied revision, it is not worth while to discuss it.

As to his idea of making the army a school, whose main business is to turn out men who will carry with them on the completion of their enlistment the commission of captain or lieutenant in the volunteer armies to be raised in time of war, it may be beautiful, but it is not war, nor does it represent effective military service in time of peace. Our army exists to perform certain functions. Its first business is to be ready at all times to do its duty. This may be the enforcement of law and order in turbulent strike-ridden cities; or the representation of the power of the government on the gold sands of Alaska, peopled with mad enthusiasts wild in the race for wealth. It may be in campaigns against a civilized foe, as in Cuba in '98, or it may be the jungle conflict against a treacherous, barbarous foe that was the common lot of the army in the Philippines from '98 to 1902, and which has again and again fallen to the lot of parts of the army since then. For this work, as in the old days for Indian work, you want men—soldiers. You need the man who does his work because it is what he is there for, what he wants and expects when he joins. You want the man to whom soldiering is a business, to be followed, because with all its ups and downs, its privations and its privileges, it suits him. A body of men, be their intellectual merit what it may, who are soldiers as a preparation to being something else will never give the perfect weapon you need. No man can serve two masters when one of them is the God of War.

That our army is not all it should be we all admit, and most of us are trying in one way or another to improve it. That this was Colonel Larned's desire when he prepared his paper no one will doubt. Nor will any one who reads the article with the light of an understanding of the enlisted strength of our army have any doubt whatever as to Colonel Larned's entire and complete unfitness to deal with the subject of the enlisted man of our army.

Call to mind the enlisted strength of the army that gathered together at Tampa in June of 1898, and remember that many of those men wore re-enlistment chevrons. In mental, moral, physical and professional fitness no such body of enlisted men ever before gathered together. They were the admiration and despair of the foreign military attachés. They were not the product of the frontier days, for the frontier days had gone before their time, save in the cases of the oldest among them. They were the peace product of the army system. How they did their work in Cuba we all know. Their officers were taken from them by staff detail, by detached service, by disease and by death, but the machine worked on without a hitch. Non-commissioned officers took up the duties of officers, and privates donned the stripes.

When the Philippine insurrection came it was the same story.

The history of the Philippines is full of incidents of companies with one officer occupying two and three barrios; enlisted men were left in charge of towns with little else than their soldierly instincts and previous training to guide them. They fought and governed, and taught and maintained order. The supply departments in Manila, overworked and undermanned, loaded on to the shoulders of the non-commissioned staff-officers who were at hand work of supervision, responsibility and importance that in the States would have been intrusted to officers or highly paid civilian employees.

Old soldiers, men who could be trusted, re-enlisted men with a history behind them of service well done, were always in demand in the establishment of American authority in the Philippine Archipelago. They were discharged to be clerks and inspectors in the customs service, to be mail clerks, school teachers, foremen of gangs of laborers, custodians of warehouses, etc. And Colonel Larned tells us our system produces men of no use to society or themselves after the stupefaction of a few years' routine.

I know of, from 1898 to 1901, former enlisted men holding volunteer commissions of the grades from major to second lieutenant inclusive. When the volunteers were raised in 1899, many of the old enlisted men were discharged or given furloughs and appointed to volunteer positions. They did their work well; some of them died in the service, some of them came into the army as officers; some returned to civil life, and some are back in their old positions now; all of them examples of the class Colonel Larned characterized as military petrifications—dull, faithful and inert.

The officers of the present Philippine scouts are with few exceptions ex-regular soldiers with enough years of service to bring them under Colonel Larned's period of stupefaction.

What might be called the collective figure of merit in military proficiency and effectiveness is not as high for our enlisted strength to-day as it was in '98. This is due to a variety of causes which, acting together, all tended to produce the same result, viz.: a lower percentage of old soldiers to the various company organizations. The immediate expansion of the infantry and cavalry at the declaration of war first weakened the leaven by drawing off men enough to fill the vacancies of non-commissioned officers and to form a backbone for the new companies. Death by bullet and by tropical disease terminated the service of many of our best men. Long tropical service and wounds caused the discharge of many others. Then came the expansion of 1901, adding five regiments each of cavalry and infantry; two battalions of engineers, the equivalent of more than eight regiments of artillery, with corresponding demands by the medical and signal corps, and the increase of post non-commissioned staff-officers. The demand for non-commissioned officers alone almost exhausted the supply of trained efficient men. There were no old

soldiers left to form that leaven in a company, the value of which the intelligent company commander knows and the supply of which he endeavors to keep on hand.

They have not had much of it in the last few years, and anyone familiar with troops can detect the distinct loss to the efficiency of the service which this lack occasions. But the process necessary to remedy this deficiency is at work. In every post or station where our flag flies recruits of the same class as were our former old soldiers are being put into shape. The recruits of 1901 are the re-enlistments of 1904.

The United States Army is continuing to do just what it always has done, and just what Colonel Larned tells us an army should do, viz.: "Be a vigorous, effective engine for the manufacture of competent soldiers working hard all the time to improve its product, and grinding out a steady stream of graduates."

It is never agreeable to attack the views of a brother officer, nor to question his right to be regarded as an expert on such military topic as he may choose for his own.

A wide latitude of discussion of things military is very valuable to the service at large; it insures mental activity, and by presenting many views from many minds renders more probable the arrival at just conclusions. There are, however, limits which should not be overstepped. In military life one of the strongest, most urgent duties of the officer is to see that never by word or deed shall he injure the enlisted man in character, person or reputation. When an officer has, whether intentionally or by inadvertence, overstepped that line of demarcation that is drawn between what he can and what he cannot do as regards enlisted men, it becomes necessary for those who know the right, to take action in the matter. To allow Colonel Larned's article to go uncontradicted is to give a tacit approval to his statements, and to share with him in what will be regarded by those competent to judge, as a defamation of the enlisted men of the United States Army.



A Reply to Colonel Mills.

Colonel Charles W. Larned, Professor U. S. M. A.

I have read with great interest and attention the criticism of Col. Stephen C. Mills, of the Inspector-General's Department, upon my paper in the current *International Quarterly* upon the Regeneration of the Enlisted Soldier. I am much impressed by its discourtesy and its violence. At its close he asserts that "it is never agreeable to attack the views of a brother officer." Had he not made this statement I should have inferred an exception in my case.

I discover upon analysis that his attack—I think I may use this term without exaggeration—is mainly delivered upon two issues; my competence to speak upon my theme, and my assumed defamation of the enlisted soldier. To the former is devoted approximately four pages, with occasional recurring references elsewhere; to the latter, in the neighborhood of six and one-half pages. In the remaining portions, my estimate of the soldier in regard to pay, accommodations and opportunities are more briefly and less violently questioned; while my contention for the "army as a school" is treated in one paragraph as chimerical and "beautiful, but not war." Precisely, Colonel Mills, as it is the *peace* soldier and his education that is at issue.

I desire to be entirely just to Colonel Mills, and I shall endeavor to be courteous, although I suppose he will admit that the provocation for retaliation has been somewhat copious.

He makes three concessions in my favor, which, considering the high temperature in which he writes, are very grateful to me, and I am prepared to credit them to the disclaimer of personal animus at the close of his paper. They are:

1. That our army is not all it should be.
2. That my idea as to pay is right.
3. That is was my desire to improve the army that led me into this very audacious intrusion upon the fields beyond my understanding.

As I have in my essay expressed in regard to the first two of these propositions the following convictions, their acceptance by my austere censor consoles me not a little for the rough-shod riding to which he has been pleased to subject me elsewhere:

1. As to the present and prospective condition of the army—"but we are facing new conditions: the frontier as a war school has vanished into history, and the future American soldier can no longer be trained there. He has to be trained under the operation of powerful social solvents during humdrum conditions of peace, in contact with civilization, or in the police service of the tropics. His service as a soldier has to compete with the attractions and opportunities of civil life. Whatever there is of adventure, is, during peace times, no longer in service, but out of it. In service is to be found arbitrary restraint, irksome subordination, tedious iteration of maneuver, and periods of inaction without freedom. Furthermore, the peace service presents no future that attracts—only the uncertain warrant of a non-com, with a slight increase of pay and the vague possibility of a commission. It is urged that it

offers a certainty of living—a bare competence which offsets the uncertainty of civil opportunity and freedom; but this is just what does not appeal to the man of energy and individuality. It appeals only at the period of young manhood to the lazy and inefficient, and its attractions generate only the 'old soldier' of the barnacle type. With only these motives, and minus the frontier, it is quite certain that the country will get a poor return even for the meager investment it makes. It will get perfunctory, inexperienced, restless service. The percentage of desertion will continue to increase, which tendency is in itself a demoralizing and corrupting influence; discipline will degrade into a police matter with resentment as its spirit; and, except in times of depression, recruiting will be unable to fill the vacancies, and for the maintenance of its military peace establishment the Great Republic will be confronted by the unpleasant alternative of conscription."

It will be observed that this is a discussion of the tendency of the new conditions since the loss of the frontier.

2. As to the problem and its solution: "The problem of to-day and the future is how to preserve these fundamentals of patriotism, pride in the military profession, subordination to authority and discipline in military performance during the long periods of peace training, without the sacrifice of individuality, initiative or self-respect, and to do this in competition with civil pursuits. Is the army to rely upon the drifting and uncertain body of the unemployed, social failures and tramps, fluctuating in number according to periods of commercial distress or prosperity, and hired for the national service at a wage less than that of unskilled labor in prosperous times? Is it to offer its service as a sort of forlorn hope to the desperate, and a last resort for the poor devil who is down on his luck or the ne'er-do-well runaway from home?"

It will be observed that this is entirely a discussion of the tendency of recent conditions in their effect upon the future soldier, and that the attempt of Colonel Mills, with virtuous resentment, to treat it as a description of the past or present enlisted man is wholly gratuitous.

In other words, I present the problem as:

"How change the conditions of military service so as to transform this service into a privilege—a career with sufficient attractions to render discharge a punishment instead of a temptation; with functions that shall interest and stimulate instead of repelling and wearying; with prospects which will inspire hope and competition; and with results to the country, which will have a maximum value in time of war * * * I believe the answer to this question is largely one of pay, sordid and unsentimental as this may appear. I believe the only way to a satisfactory military product in time of peace is through self-interest—in other words, to pay a fair price for it."

In this conclusion I understand Colonel Mills to announce that I am right.

Colonel Mills has made the personal issue of competence so prominent that I am compelled to specify with exactness the amount of my official association with the American soldier. I very greatly regret that I have not had the varied and important experience of my distinguished critic, who was brevetted for gallantry in Indian service and has enjoyed the advantages of military attaché on the Continent. My inconspicuous active service with enlisted men consisted of:

Command of troop, march of 300 miles from Fort Hays to Leavenworth. Service with troop winter of '70-'71, Fort Leavenworth. On transport eleven days with troop transferred to Louisville, Ky., spring of '71. Sick leave June

'71 to February '72. In garrison with troop February '72 until winter of '72-'73—acting adjutant, A.Q.M., A.C.S. In camp, Livingston, Ky., in command detachment of cavalry, Reconstruction work, assisting U. S. Marshal, winter of '72-'73. With troop, move of regiment to Dakota, spring of '73. Marched with troop from Yankton to Fort Rice, and served with troop and as topographical officer, Stanley Expedition against Sioux '73, mixed command 1500 cavalry, infantry and scouts, and two guns; 1500 miles of marching; action with Sitting Bull at the mouth of Big Horn. As judge-advocate of General Courts, tried over 100 cases involving sentences of from seven years to two months.

As an officer of the Military Academy for over thirty years I have been in constant contact with officers of every arm of the service, and have discussed with them every phase of active service from every point of view; and, in addition, have visited army posts, besides seeing daily the enlisted men of the engineers, artillery and cavalry on duty here, who are paid as elsewhere. The professors of the Military Academy are rather more closely in contact with military matters and military art during peace times than the average officer of Engineers and Ordnance, of the Judge Advocate's and Pay Departments, and some others who bear rank in the service.

The issue of defamation of the enlisted man I will answer by quotations from my paper. The accusation somewhat bewilders me. A week ago I defended myself from the charge of overpraising them. I also am informed that enlisted men who have read my paper are greatly pleased with it. Here is what I have said:

Speaking of the Modern Soldier in a paper of April, 1902, in the same periodical; "The American type is the forerunner—the soldier of the future. * * * He is always a citizen and a volunteer (meaning the regular); always a thinking, independent, fearless, self-respecting man who fights for his country and his rights * * * his discipline is higher than that of the Continental automaton because it is not the discipline of fear and conscription. No more subordinate, cheerful and honestly respectful soldier is to be found in the world than he; devoted to his officer, frank and fearless—the very traits which shocked the harsh formalists of the foreign powers in Asia are the elements which make him the foremost soldier of the new century and the highest type of the profession of arms."

In the present paper:

"Our war of '61 did more to dignify the private soldier and change his social status than any other event in modern history * * * The private has gained of necessity an individuality and initiative entirely at variance with the automatic idea."

I have, therefore, claimed that up to the disappearance of the frontier school of discipline the American soldier has been the finest in the world, and has established a type whose development I would gladly see logically perfected under new conditions. I believe that, since this period, there has been some retrogression in the quality of the average soldier, and that this retrogression will increase in the future unless radical changes in his status are effected. I base my convictions upon the reiterated statements of officers with whom I have discussed the matter; upon some observations at posts where I have seen him; as well as upon statistics of desertion and courts-martial. There are doubtless many exceptions, but I speak of the mass.

The various disparaging quotations made from my article concern the peace soldier which would be developed by old methods under the new conditions. But, waiving all question of the deterioration of the peace type, and admitting that he is still as good as the regular of the Santiago army, every word of my contention as to his exaltation to a higher intellectual grade; his education along higher professional lines for commissioned service in war time; his rights to better social recognition and substantial promotion in his own field; and all the rest, to be effected largely by increased pay, would still be my contention, as well as the superlative value to the country of the army as a school.

The limited period of twenty-four hours and the space accorded me for this reply do not permit of seriatim answers to Colonel Mills's questions, strictures and slurs, as I, perhaps presumptuously feel I might do with reasonable directness and satisfaction.

I composed the essay, which has aroused so much more interest and contention than I dreamed of, in the modest hope of presenting some new views of army conditions which might be worthy of general consideration; I sent it to a periodical which had previously published a paper of mine upon the modern soldier, of which this was the logical sequel. I may, at least, say that both papers were carefully thought out, and were the fruit of the reflection of many years, and some study of sociology and modern political history. To all sufficiently interested I appeal for a fair reading of the paper without bias or animus.

I have already apologized elsewhere for venturing—a mere military pedagogue, so to speak—an excursion beyond the professional bounds of the Hudson Highlands; and for whatever offense I have inadvertently given to any individuals of our splendid commissioned personnel who are my superiors in active service and experience, I here tender my sincere regrets; but, on the whole, this is as far in the matter of apologizing as I feel called upon to go. I am inclined to think, from a consideration of results, that the field was ripe for discussion, and that the apple of discord I have thrown upon it may take root and bear good, acceptable fruit. Believing that I am entirely right, I am going to “stand pat” with my back against the wall, if Colonel Mills will permit me, in spite of having transgressed “the limits” which he thinks “should not be overstepped”; and with the clearer conscience, since my article has not “gone uncontradicted” and no one, including the daily papers, need be any longer alarmed lest I be supposed to “voice” anything or anybody but my own pestiferous convictions; and also because, since Colonel Mills’s impassioned accusation I have looked into the depths of my heart, and my papers, and can solemnly assure everybody that I never “by word or deed” intended “to injure the enlisted man in character, person or reputation” but, quite the reverse, have labored under the impression that I was fighting his battle to a quixotic extent.

Long habit and obstinate Americanism lead me to insist upon a considerable latitude of free speech, even within military limits, with due regard to courtesy and the feelings of those whom I address; since, as Colonel Mills judiciously observes, it presents “many views from many minds” and “renders more probable the arrival at just conclusions.”

**“How Far Does Democracy Affect the Organization and Discipline
of Our Armies, and How Can Its Influence be
Most Effectually Utilized?***”

DISCUSSION.

Brigadier-General John W. Clous, U. S. A.

Mr. President and Gentlemen: I congratulate my friend and former colleague upon the admirable paper he has presented. There is scarcely anything left for me to say except, perhaps, to emphasize that feature of his discussion which relates to public opinion.

There is indeed a decadence in this particular when we find reputable public journals referring to persons in the military service of the United States as being engaged “in the man-killing trade.” The principle underlying the existence of a state or nation that its able-bodied inhabitants owe it, the duty of defense, is ignored. Universal military service was the rule in the ancient democracies of Sparta and Athens; in modern times the same rule is applied in Russia, Austria, Italy, Germany and France. England is just now grappling with the same subject, upon the advice of her foremost military men, Field-Marshal Roberts and others.

The trouble with us is that under the modern devil of sordid commercialism, which corrupts legislators and public servants and dulls public conscience, the average man considers that the state and the government exist for his sole personal benefit; he does not realize that the rights, privileges and immunities resulting from citizenship have corresponding responsibilities and duties. The average citizen demands from the municipality in which he lives protection for himself, his family, his property and his business, and if this is deficient in the slightest respect he complains vociferously; but when it comes to providing for the defense of the state at large, the nation, he is singularly silent and apathetic.

The framers of the Constitution recognized at an early date the duty of the citizen to defend his country, and in 1792 passed the Militia Act, under which every able-bodied inhabitant of the United States was required to be enrolled. As a youth of nineteen years I remember having been summoned for this purpose to appear in Washington Square, New York, in 1856. [But this act, remaining in force until the passage of the Dick Bill a few years ago, failed in its purpose and was practically barren of results. In the great wave of patriotism of 1861, when the very existence of the government was at stake, the citizens flocked to the support of the flag voluntarily discharging their duty of defense, but this wave had spent its force at the begin-

*Seaman Prize Essay—1905; read at a General meeting M. S. I. on Governor's Island, N. Y., December 13, 1905.

ning of 1863, and the Conscription Act of March 2, 1863, had to be passed, and through its provisions and the payment of enormous bounties sufficient men were enrolled to bring the war to a successful issue two years later. Unfortunately this act set a most undemocratic precedent; instead of recognizing the principle that the duty of defense of one's country is one to be shared alike by the rich and the poor, it permitted the man of means to purchase a substitute.

The duty of the citizen to defend his country was again the subject of statutory enactment by Congress on April 22, 1898, when it was declared that every able-bodied citizen between the ages of eighteen and forty-five years owed the nation military service; and the armed forces of the United States were divided into three parts: the regular army, the volunteer forces and the militia, but no provision was made for the discharge of the obligation thus declared to exist.

This decadence of public opinion as to the duty of defense of his country on the part of the able-bodied male inhabitant is not solely due to commercialism. There are other agencies just as potent. The peace societies are doing their share in preventing in times of peace proper preparations for war. Mr. Bartholdt, the President of the Interparliamentary Peace Congress, recently received by the President of the United States, said: "One of the chief obstacles to the spirit of peace in our nation is in our system of education, which holds up every soldier as a hero. The school should be used to curb and not to encourage the brute instincts of children. There should be no military drills and everything that smacks of war should be removed from the schoolroom."

Another factor in this connection is the labor unions which forbid their members to join the militia. Indeed, if the statements in public prints are to be credited, the latest scheme of the labor agitator is to unionize the soldiers and the sailors so as to be able to call them out when the so-called interests of labor should demand.

In the face of all this we turn with some relief to the utterances of that gallant English soldier of South African fame, Gen. Ian Hamilton, who, warningly addressing his countrymen, says that the ultimate fate of the white man depends upon whether or not he will "close his ears to those who tell him that wars and preparations for wars are pure evil and that pure, unadulterated commercialism would be an earthly paradise." He further says: "This is no time for any civilized nation to play pranks with its army or to gamble at confidence-trick games with its rivals at the Hague."

When last spring the Universal Peace Society met in this city the members wore buttons displaying on white ground a pair of scales entitled "Justice"; thus discarding from the ancient emblem the sword which accompanies the scales.

I am forcibly reminded in connection with this incident, as well as with the subject under discussion, of the celebrated essay of Prof.

Von Ihering on the "Struggle for Right or Law," which has been translated into twenty or more languages. He says in substance: 'The aim of right is peace—the means thereto, battle; or the end of the law is peace, the means to that end is war.' Paradoxical as this may seem, he explains it by saying that so long as right must fear an attack on the part of the wrong—and this will be the case until the end of all things—so long will battle do its portion. The life of the right is battle, a battle of nations, of the government, of classes, of individuals. Every right in the world has been won on the battle-field. Every maxim of right that obtains in the world has been obliged to be wrung from those who opposed it, and every right, be it the right of a nation or an individual, presupposes the constant readiness to defend it. Right is not a mere theory, but a living force. Therefore it is that Justice, while holding in the one hand the scales wherewith to mete out right, brandishes with the other the sword to defend it withal. The sword without the scales is brute force, the scales without the sword is the impotence of right or law. Both must be found together, they are inseparable; and a perfect state of right is only possible where the strength with which Justice brandishes the sword is in proportion to the skill with which she holds the scales. The element of quarrel, strife and battle that the universal peace advocate wishes to eliminate out of the notion of right is its own very element and belongs to it eternally. "Battle (strife) is the perpetual work of right." The maxim, "In the sweat of thy brow shalt thou eat thy bread" is confronted by another of equal truth; "In battle shalt thou find thy right." From the very moment that right gives up its readiness to do battle it gives itself up, for the words of the poet are applicable to right also:

"Das ist der Weisheit letzter Schluss

Nur der verdient sich Freiheit wie das Leben

Der täglich sie erobern muss."

In other words, only he deserves liberty and life who has to conquer them for himself every day.

Thanking you for your kind attention, permit me to say in conclusion that under our present state of public opinion there is nothing left for us but to strive for the dissemination of sound doctrines as to national defense and for the education of the youth in patriotism and the duties of citizenship.

Brig.-General Theodore Schwan, U. S. A.

In commenting upon the essay of Lieutenant-Colonel Pettit, which won the Seaman Prize for 1905, it is but fair to admit at the outset that the investigation and discussion of the subject of competition was both a difficult and an unattractive task. The people including the Army of the United States are so wedded to democratic institutions that they are prone to regard with disfavor him who exposes the weak spots in such a system. Colonel Pettit has not shrunk from doing this. While in his opening remarks he concedes on the one hand that an autocratic government may not produce an effective military establishment, since much depends on ruler and people, and points out on the other hand that a democracy as a rule stands for peace and hence may safely limit its military efforts to a proper preparation for defense, he insists for reasons that seem to him self-evident that a monarchy, rather than a republic, is likely to secure "that unity of command and control of resources so vital to the successful organization, the discipline and campaigning of armies."

In addressing himself now to the first branch of his theme, namely, "How Far Does Democracy Affect the Organization and Discipline of Our Armies," the author examines in some detail the control and influences severally exercised over these matters by the Congress, the President, the Secretary of War, the governors of States, and last but not least by public opinion. He next traces from historical sources, chiefly from the notable work of General Upton, the often pernicious effects of the exercise of this power and of these influences, however well intended, upon the conduct of the various wars in which this country has been involved; and he further shows that upon the conclusion of each of these wars our Government utterly failed to profit by the lessons it ought to have taught us.

It will be well to note here the essential points which the author has sought to demonstrate under this head. Congress, he reminds his readers, is the fountain head of the existence, organization and discipline of the army; it is also a body whose membership is changing every two years, and for this and other reasons it is really controlled by a few men, especially its lower house. It is a principle regarded as sound the world over that the legislation necessary for the expansion of an army from a peace to a war footing should be perfected during peace. But congressmen, or the majority of them, have given little or no thought to the military history of the country, and their knowledge of and interest in military affairs being small they are reluctant to take up and consider such legislation. It follows that the nation is unprepared when war comes. Wastefulness in the expenditure of blood and treasure in the conduct of the war inevitably results, and humiliating defeats are likely to result from this unpreparedness. The President and his legal representative, the Secretary

of War, both usually civilians and politicians, are, in the light of past experience, liable to interfere, and to interfere at critical junctures, with the carefully planned operations of military commanders and with the discipline of their troops. In all of the country's past wars the President, yielding to political pressure or to supposed political exigencies, has confided important commands to men without military training or experience, thus inviting disaster and multiplying the National difficulties and perils. Governors of States, Colonel Pettit thinks, control the organization of our armies to an even greater degree than does the President. With the governors rests not only the organization of the militia and the appointment of militia officers, but also (under the authority of Congress) the appointment of company and field-officers of such volunteers as may be raised in their respective States. These "rights" of the States the author considers "the weakest link of the chain" in war. Public opinion, he declares, dominates all, including the highest officials, National and State. If it should demand a strong Regular Army we should have one; but as regards this and military legislation generally, it is indifferent and apathetic. It is likewise incapable of understanding either the gravity of military offenses, such as desertion, or the necessity for limiting the bestowal of authorized rewards to those worthy of them.

Lack of space does not permit us to summarize the mass of interesting and significant historical facts adduced by Colonel Pettit in support of his opinion, that our political system and national characteristics make it well-nigh impossible to obtain for our armies an organization and a discipline comparable in merit to the organization and the discipline of, for instance, the Army of Japan. Among his deductions from those facts, for the most part taken from Upton, and general in their application, the following are, however, worthy of special mention and emphasis. The value of the service which militia and short-term volunteers can render the general government in a war of indefinite duration is entirely disproportionate to the time, difficulty and expense involved in the organization, equipment and training of such troops. For a war of this kind a more permanent force is indispensable. When a nation attempts to pit raw levies against disciplined troops it must maintain an army twice the size of that of the enemy, and even then it has no guarantee of success. Regular troops engaged for the war are the only safe reliance of the government and are in every point the best and most economical. When a nation at war relies upon a system of regulars and volunteers, or regulars and militia, men will, as a rule, enlist in the organization most lax in discipline. Troops become reliable only in proportion as they are disciplined; discipline is the fruit of long training and cannot be obtained without the existence of a good corps of officers. The organization of new volunteer regiments instead of the recruitment of

regiments already organized but depleted is an error of the first magnitude. A vicious policy hitherto pursued by Congress and likely to be continued is its failure to utilize our trained officers in war time to anything like a sufficient extent. Volunteers raised from the nation at large, without State intervention, whose officers are commissioned by the President, reach a high degree of efficiency in a short time when commanded by regular officers. We have never had a civilian Secretary of War who understood the foundation principles of army organization, the science of command, the relations between officers and men necessary to discipline, or who would concede to a commanding general the full rights and powers of his office.

When Colonel Pettit comes to consider the problem presented in the second clause of his subject—"How can its [Democracy's] influence be most effectually utilized," he first eliminates those things which "we feel sure our people will not countenance." Schemes providing for compulsory service in time of peace, a large standing army, the creation of a national reserve, and others of like nature, however excellent in themselves, are certain to find their tomb, he thinks, in the lethargy of Congress and the general confidence, not to say conceit, which great wealth and numbers beget. After again alluding to certain notions long embodied in our national creed and still believed to be sound, though history has abundantly proved their fallacy, such as dependence upon a militia to which, owing to our law makers' delinquency, the attribute "well regulated" cannot be justly applied, the deep-rooted belief that the organization and officering of volunteers is largely and properly a State function, and the popularity with our people of what he calls "the latent-strength idea," the author unfolds a scheme which, while reckoning with our national prejudices, must appeal, he thinks, to Congress "as reasonable and economical for a nation posing as a great world power, with weak colonies and a growing tendency to regulate the affairs of its neighbors."

This scheme embraces, first, a partial reorganization of the Regular Army, which he would keep in the highest state of efficiency, and second, the maintenance of a second line, to consist of the organized militia. As regards the former, he would leave the peace organization of the cavalry, coast artillery and the staff corps as prescribed in the act of Feb. 2, 1901. The cavalry, he shows, is now on a war footing [or proportionate in strength to an infantry force of 75,000,] and the coast artillery and the staff corps may, when war comes, be readily expanded to 30,000 and 12,000 respectively, which numbers he deems sufficient. This scheme is based on the supposition of the formation of a Regular Army reserve which after eight years from the date of an act creating a reserve would amount to about 70,000, a sufficient number for the proposed expansion of the infantry, coast artillery and staff corps. If adopted, the enlisted strength of the several arms in peace and war would be as follows:

	PEACE	WAR
Infantry.....	30,000	75,000*
Coast Artillery.....	12,000	30,000
Field-Artillery.....	12,500	12,500
Staff Corps.....	5,500	12,000
Cavalry.....	15,000	15,000
	<hr/> 75,000	<hr/> 144,500

The "second line," the author believes, must consist of the organized militia and its reserve. This militia, at present numbering, 115,000, should be increased to 200,000 under a system that would admit of its further increase to 300,000 in war time. To effect the increase, and to maintain both active and reserve militia in a "well regulated" or effective state, ought not to be difficult if the States and the United States assumed, as they rightfully should, the full burden of the expense entailed. Colonel Pettit estimates at \$89,000 the total yearly cost of maintaining the Regular Army and the organized militia, including the reserve of each, upon a peace basis as above outlined. He is not hopeful; however, that a radical change in our military system or lack of system, or even the half measures which he advocates, will be decided upon until a strong foe has taught us that a well organized and disciplined army cannot be created overnight, but only by dint of long continued effort and training. Meanwhile we have been and are living in a fool's paradise.

Such is the substance of Colonel Pettit's paper. There is no doubt that in composing and publishing it he has rendered the army and the country a real service. It fairly bristles with forceful points showing how heedless, on the whole, our law makers have been of the teachings of their own country's history, and therein lies perhaps its chief value. It also scores strongly in drawing attention to the serious handicap under which the army at all times labors in being subject as regards all questions—those affecting the training and discipline of the troops (upon which experts only are competent to decide) no less than such as pertain to military expenditure and administration—not only to the head of the state, who of necessity must be the head of the army as well, but also to the Secretary of War, sometimes inclined, perhaps naturally and almost unconsciously so, to subordinate military efficiency to political expediency, where the two conflict.

In portraying these evils in an impressive yet purely impersonal manner, Colonel Pettit has demonstrated to the army that when for a fair and full treatment of matters vitally effecting the military service it becomes necessary to show in what respects our military structure is organically weak, those having the power to strengthen

*Plus 15,000 in the Philippines who, he thinks, could not be counted upon in an emergency.

the weak parts ought to be and will be the last to take umbrage or object. He is also entirely right in contending that in a country like ours the first step toward reform is to explain to the public the mischiefs requiring reformation, and that this can only be done by a free discussion of the subject in the public prints or with men influential in molding public opinion whenever the opportunity presents itself. Of course, such discussion must not degenerate in abuse of or reflection upon the motives of persons in authority, and should always be dignified in tone and characterized by a spirit of fairness.

On the whole, then, it appears that Colonel Pettit has developed the first branch of his subject on just lines. It is to be noted, however, that the reluctance of Congress to deal with military matters not exigent in their nature has been repeatedly overcome, especially of late years, by the energetic and tactful action of the War Department. Here witness the passage through Congress of the act of Feb. 2, 1901, and of the General Staff Bill on February 14, 1903, both measures far reaching in scope and effect, that met with bitter opposition from within and without the army. At the former date the Philippine insurrection was known to be on its last legs, and at the latter had been entirely suppressed. The Dick Bill, too, was passed at a time when, contrary to the author's impression, we were not at war, namely on January 21, 1903. (It did not, by the way, appropriate two million dollars or any lump sum for distribution once for all among the organized militia, but authorized the payment, subsistence and transportation of organized militia participating in the maneuvers and field-exercises of regular troops out of the current appropriations for the army.) Other instances might be cited when extraordinary army legislation was wrested in peace time from an unsympathetic Congress by an alert and persistent Secretary of War.

Now that a general staff of high aims, conceded ability and truly representative of the fighting troops is a fact and bids fair under the scheme adopted for its development to become a recognized and efficient factor both in the working out of purely military problems and in the effectuation of wise economies, it ought to become increasingly easy to get from Congress during peace the legislation needed to so perfect our military machine that all its parts will work without serious hitch in war. The peace activities of the General Staff should at least spare the nation, when face to face with another war, the spectacle of utter helplessness and paralysis which the War Department has heretofore presented on similar emergent occasions.

Colonel Pettit says truly that while Congress has furnished the Secretary of War with a chief of staff assisted by the General Staff to advise the Secretary in military affairs the latter is under no compulsion to accept such advice. At the time the General Staff Bill was pending before the Senate, that body amended the bill so as to place the chief of staff in the exercise of his supervision of all troops of the

line and of the several staff corps under the immediate direction of the President. Our own experience, and that of other nations, evidences the wisdom of subordinating the officer in whom this supervising power is vested, and who, moreover, is charged with the preparation of plans for the national defense, to the President direct, without the intervention of the Secretary of War, at least so far as regards the discipline and training of the troops. It is regrettable, therefore, that the amendment did not meet with the approbation of the War Department, at whose instance, it is understood, its phraseology was so changed as to place the chief of staff "under the direction of the President, or of the Secretary of War under the direction of the President." This change has in practice resulted, and could not fail to result, in reducing to a minimum the direct official intercourse of the chief of staff with the head of the state which the law, even as it stands at present, still permits.

Colonel Pettit also suggests that whenever the Secretary of War wishes to rid himself of the presence of the chief of staff he may send the latter into the field. As regards this means of dispensing with a chief of staff it is, however, to be said, first, that the law admits of the removal of the chief of staff at any time, and that the regulations make it his duty to ask to be relieved whenever he feels that he no longer enjoys that absolute confidence of both the President and Secretary of War which is deemed a *sine-quâ non* to the successful performance of the duties of the office of the chief of staff; and, in the second place, that the assignment of the chief of staff to duty in the field in time of war not only does not conflict with law, but may be dictated by considerations of the highest military expediency. For after all who is more fit to be entrusted with the immediate conduct of war operations than the officer who performed, or under whose guidance was performed, all the necessary preparatory work for war, such as the formulation of plans of campaign and mobilization? In the Franco-Prussian War, as well as in the Prusso-Austrian War, Moltke, from the headquarters of one of the Prussian field-armies, directed successfully the operations of all; and General Grant, after his elevation to the Lieutenant-Generalcy in 1864, did the same in our Civil War. In the absence of the chief of staff from the seat of government, the general-staff work there would naturally fall to a substitutional general staff determined upon beforehand and fully informed of the views and plans of the chief.

Let us now glance briefly at the scheme which, all things considered, Colonel Pettit believes is least liable to provoke unfavorable criticism or antagonism, and, therefore, has the best chance of being adopted. This scheme embraces, as has been said, a small regular army, kept in the highest state of efficiency, and the organized militia, both army and militia to be provided with a proper reserve. While it may be improbable that the proposed increase in infantry regiments

and field-batteries would appeal to Congress as "reasonable and economical," military men are likely to agree that such increase, particularly in the infantry, would be an eminently wise measure. Infantry is the least expensive and most serviceable and useful of all arms; yet the popular belief that it can be much more readily improvised than cavalry will not bear investigation. Attention has been often drawn to the short time after its organization within which a United States volunteer infantry contingent under regular field-officers was put to effective use in the Philippine insurrection in 1899-1900. But this fact (partially accounted for by the large number of "Spanish War veterans" who entered the force), while showing the immense advantage of appointing regular officers to field positions in newly organized volunteers, by no means proves—as has somehow been inferred—that under similar conditions cavalry cannot be raised, trained and utilized with equal celerity in a country in which horses suitable for cavalry abound. It is, in fact, within the writer's personal knowledge that the squadron of the Eleventh Volunteer Cavalry, commanded by Major Nolan, was no less efficient, though but recently organized, than an excellent squadron of regular cavalry along side of which it served throughout the southern Luzon expedition, early in 1900, an expedition that was noted for the rapidity with which the bulk of the troops composing it performed long and difficult marches. Whatever time may be consumed by the cavalry recruit in learning to ride and in acquiring "horsemastership" is fully offset by the time it takes to so develop and harden the new infantryman that he will not break down under the tremendous strain, to which, loaded down as he must be, he is subjected on the march and in battle. Without underrating the importance of thorough practice in battle-tactics, out post duty, marches and camp life, and least of all in rifle firing, it is nevertheless believed that, whatever the arm, *discipline* is above everything that which gives cohesion to armies and hence is paramount in importance to any other element in the training of the soldier. And discipline, to repeat the dictum of Upton, can only be inculcated after long training by a corps of competent officers. To put the matter somewhat differently; what experienced officer is there who, for active and arduous work, would not prefer a well disciplined and seasoned battalion of infantry, made up of fair shots, to an equal number of hastily collected and undisciplined crack riflemen? Aside from the necessity of adding to the trained nuclei of foot troops quickly available for service at the front, the proposed increase in infantry would in part serve to supply the great numbers of experienced officers required for all sorts of purposes when war comes, notably for staff duty and in part officering a volunteer army. But it may be doubted whether for training purposes and to keep up the interest of officers and men fifty for the company would be a sufficient enlisted strength. The need of a regular army reserve, which should

include skeleton formations for keeping at their full strength the units at the front, is attested by the war experience of all countries, including our own.

Colonel Pettit is certainly right in pleading for a regular army of such peace organization as will readily lend itself to the army's prompt expansion when necessary into an effective force of considerable size. This plea is abundantly warranted by the consideration that in any international war our country may become involved in the Regular Army will have to bear the brunt of the war in its initial (liable also to be the decisive) stage. Should the war be one of such magnitude that the Regular Army when at its war establishment cannot cope with it alone, the author appears to rely mainly, if not solely, on the organized militia for a "second line." Although the concentration of State militias, regardless of State lines, for field instruction in connection with regular troops is beset with difficulties and may not always work smoothly, it will be generally admitted that the Dick law has improved, and will continue to improve, the organization, the equipment and the instruction of the militia as a whole. Nevertheless, neither this nor any other law, however well intended and judiciously phrased, can overcome the inherent weakness of the militia as a *federal* force. The source of this weakness is to be found in the Federal Constitution, which appears to sanction its employment as such in emergencies only, a view which seems to have actuated Congress in its persistent limitation of such employment to nine months. The reservation of the training of the militia and of the appointment of its officers to the States, and the restriction of its use by the National Government to certain specified purposes, also pointedly indicate its non-availability as a dependable field force in a protracted war, internal or external. Indeed, the history of our country down to the Civil War is replete with instances of its failure at critical conjunctures, as Colonel Pettit himself vividly shows by the citation of numerous cases. Under certain circumstances at the commencement of a war the militia would be helpful in the defense of places on the frontier and elsewhere within the country, and also in garrisoning forts from which regulars are in part or wholly withdrawn. But aside from this and its unquestionable importance to the States, whose welfare is, of course, of deep concern to the Union at all times, the organized militia is chiefly valuable to the general government as a military training school, the patriotic members of which who have profited by the training, together with others possessing the requisite qualifications, will naturally form the framework of organizations of volunteers.

Few who have pondered the matter will deny that a volunteer army will, next to the Regular Army, be our main stay in future as it has been in past wars. It must be borne in mind that the Constitutional provision granting power to Congress "to raise and support

armies" includes both regulars and volunteers. The word *support* here obviously contemplates a more permanent force than that which the nation may borrow from the States under certain conditions, to enable it to meet an exigency or until it can bring into service a sufficient army of its own. It is further to be remembered that a volunteer force, even one raised with the assistance of the States, passes under the complete control of the national government after its muster into the United States service. True, the officers of volunteer regiments so raised have hitherto been appointed by the governors of the several States, and Colonel Pettit properly adverts to the practice, authorized afresh in the Dick law, as detracting from the value, of such troops to the Union. The proceeding in question is, however, so anomalous—the appointment of a United States attorney or judge for a judicial district comprised within the limits of a State by the governor of that State would hardly be more so—that, when made to realize its incongruity and bad effects, Congress may abolish it despite its sanction by long usage. Let us hope, too, that under the new dispensation it will place laws on the statute books that will facilitate and expedite the raising of an effective volunteer force, whenever necessary, according to plans previously worked out by the General Staff. Such plans ought, and doubtless will, provide for the assignment of regular officers to volunteer regiments in a just and discriminating manner and without crippling the regular regiments from which they are detached. But whether our law makers meet or disappoint this reasonable expectation, it is safe to predict that volunteers will form the bulk of our armies in all but small or short wars in which the country may engage. Under a provision of the act of April 22, 1898, revitalized in the Dick law, units of organized militia may enlist in bodies in any volunteer army authorized by Congress, but such enlistments must be the voluntary acts of the individual militiamen, many of whom, as in the late war with Spain, will wish to remain at home or in the State service.

The only excuse for the foregoing somewhat long drawn out recapitulation of and comments upon Colonel Pettit's admirable paper is that the vital importance to the army and the Republic of the matters therein treated, is not appreciated by, and hence cannot be too much borne in upon the American people.

Colonel Charles W. Larned, U. S. M. A.

Colonel Pettit has held an exceedingly interesting clinic upon our body politic, and has exposed with a very sharp scalpel the diseased military and political tissue that has cost us from the earliest days much anguish, disaster and money. His diagnosis is very convincing and satisfying to the military mind, which has long grieved over

the distressful conditions that have operated to impair our military efficiency and to imperil the national safety.

He has spoken his own mind with great frankness and delivered himself of a large amount of caustic truth with the unequivocal directness of a soldier. It does not impair the force of his utterance, nor its merit, that a great deal of it has been said before, and that a knowledge of it is the common property of his colleagues. They are his debtors for collecting and administering the medicine without dilution to the national patient. The probabilities are, as he will be the first to admit, that it will not do a particle of good except as a relief to the mind of himself and his brother officers. The disease is too deep-seated—in point of fact, it may be called congenital. No clearer demonstration could possibly have been given, by disaster, humiliation and cost, of the corrosive power of political chicane in military affairs than was displayed for public edification in the war for the Union; but the ink was hardly dry upon the Appomattox protocol before the lesson had all passed into oblivion and our legislative mechanism proceeded to operate in martial affairs in the old familiar way. Colonel Pettit has expressed the reason excellently well in this very effective and explosive paragraph:

Public opinion is to a great extent a reflex of national characteristics. We are of sanguine temperament; we believe in our star; we regard the law lightly; we place thousands of laws on the statutes, but are lax in enforcing them. Juries are proverbially lenient; offences are soon condoned, then forgotten, especially where public officials are the offenders; evils must become oppressive to be eradicated; we are a military, but not a warlike people; that is, we have the courage, temperament of the best soldiers, but prefer peace to war.

His paper is full of sharp, sententious deliveries, very admirably put, and from which there is no shelter. He drags political culprits out of history, backs them up against the wall of judgment, and pistols them without mercy with a fusillade of facts and statistics. Unfortunately these victims of just resentment are, if I may be pardoned for saying so, already dead, and their posterity, present and future, are out of range.

While many of Colonel Pettit's epigrammatic deliveries are very true and forceful, some, I fear, are forceful without being wholly true; while some few are rather vituperative than expedient. I think that in considering this grave question of army organization we are more concerned with constructive than with recriminative criticism. We might as well accept at once the fact, in which he acquiesces later, that militarism is a bugbear to the American Republic, and military organization extremely irksome, as well as a great deal of a bore, until the fight is on. We have been so long out of the European scrimmage and free from the pressure of universal armament and conscription, that the American mind contemplates the necessity of some thorough

soldiering with extreme aversion. But we must bear in mind that our American Republic is a very colossal and abnormal fact in the social and political economy of this planet, and one in whose successful and compelling destiny we are deeply interested. Her hatred of militarism, as heretofore developed, is well taken, and a retrospective glance down the avenue of history is enough to justify it. I think that every reflecting American will contemplate our sudden entry into the international turmoil, and the military necessities that this implies, with considerable apprehension and regret, even while acknowledging that we could not avoid it if we would and should not if we could. Somewhere about here I feel with reluctance that I part company with Colonel Pettit for a while, and take issue with certain conclusions which are either directly propounded or logically to be inferred from his tendency.

The first of these which I find myself questioning is as follows:

It is a self-evident proposition that a democracy based on the will of millions of people, expressed through devious and changing channels, cannot be as skilful or efficient in the conduct of military affairs as a monarchy headed by a wise and powerful chief.

Rome as a great democratic republic conquered all the autocracies of the world about her, and quite literally sat on the heads of the "one-man powers" whose undisputed wills controlled many times her population and military resources. Later on, republican France effected a somewhat similar achievement.

Again:

The very essence of military strength is "one-man power"—the strong commander, whose wishes are paramount and must be felt to the lowest unit in the army. When he is ruler of the nation as well, he is court of last appeal, and secures that unity of command and control of resources, so vital to the successful organization, the discipline and campaigning of armies.

Yes, but only *if* he is capable; and if he is *too capable* his price is apt to be altogether too high for the public welfare. If an incapable despot, his incapacity is fatal. The capable despots devour the incapable ones, together with their peoples, and, I fancy, the victims at least are not impressed with the wisdom of one-man power in military affairs.

Again:

A monarchy is more permanent, and can therefore establish a fixed military policy, so necessary in the building up of an army.

After Rome became an imperial autocracy her military organization and power degenerated, and her monarchical institutions, unstable and rotten, contributed directly to the degeneracy of the military spirit.

France as a republic, while still in the throes and pangs of new birth, created and organized an army that made those of the surrounding despotisms dance to the tune of her Marseillaise. Under the Second Empire, with the false glamor of a great military prestige and under the control of an autocrat of no mean capacity, she organized corruption and defeat.

I need hardly cite the Athenian and Italian republics because, perhaps, the analogies do not fairly hold. It is pertinent, however, to observe that while the military triumphs of democratic Athens were glorious and inspiring, those of monarchical Sparta were contemptible and depressing. The inconsistency and inconstancy of the Democracy invited disaster, and were hard on her heroes; but the harsh military autocracy of the Monarchy, while it apotheosized physical courage and military stoicism, also exalted lying and theft to the rank of moral principles, and incidentally dehumanized her race.

Austria, an ideal military despotism, has long possessed a military machine of the highest elaboration that kept her always embroiled and nearly always defeated.

To be sure, Colonel Pettit has inserted the proviso that the chief must be "wise and powerful;" but the condition is not pertinent, since the system must be organized for all comers—it cannot be made for Napoleons and Alexanders alone—and his obvious contrast is between the military advantages possessed by absolute monarchies and the military demerits of republics.

Again:

"The sovereign is not fettered by the spoils system."

A monarch is not "fettered" by the spoils system because the spoils system is the perquisite of his crown. He dispenses spoils by "divine right." The stage properties and embellishments of his military establishment are generally the bribes and rewards by which the integrity of his political system is assured.

In the foregoing I have no desire to be captious—I wish only to emphasize what I sincerely believe, *i. e.*, that while the mechanism of huge armies dominated by the automatic slavery demanded by a despotic purpose is more readily constructed and operated under monarchies; not only is there no assurance that the result will be a military success, but there is a certainty that with incapable leadership, a cataclysm of disaster will result; while we know full well that the underlying genius of the system is foreign and abhorrent to free peoples—so justly so, indeed, that no republic should seek to organize its military resources on the "one-man power" principle, no matter what the hazard. Furthermore, I do not think that the recent developments of military science under the stress of war point to one-man control in military organization. Staff organization of armies; staff strategic planning and prevision; and even general

staff control of the larger operations of campaigns have come to dominate military affairs more and more ever since Scharnhorst and Von Moltke. Individual commanders for field units, large and small, but consultative Strategic control before and even during war is the result which evolution is developing for the future, and which I think we may contemplate with equanimity. For the rare possibility of an occasional military genius there is always in "one-man systems" the certainty of long continued and despotic incompetence. Are exalted mediocrities so rare in our experience that we can risk their control in our affairs?

Without lamenting the absence of monarchical powers in our military system let us accept our republicanism loyally and with rejoicing, notwithstanding all its inadequacies, blunders and inconsistencies in our trade. This, I am sure Colonel Pettit is prepared to do, as he has indicated at the outset of the constructive portion of his paper. It represents a principle that is sure to prevail and which is of infinitely more importance in itself than military perfection and supremacy. I would even say that the integrity of our political ideals were better purchased by occasional temporary military disaster than that, by the sacrifice of one jot of the principles by which they are sustained, we should achieve an ideal military system.

But I am not so pessimistic as this impressive record of blunders would naturally induce. I bear in mind that no nation in the world has dealt with so liberal a hand in military affairs, even while so often indulging in fatuous legislation. I also recall that the whole blame for the inadequacy of our establishment cannot by any means be laid at the Congressional door. Discord as to correct principles of organization, both in great and small matters, has been rampant in army circles. For years Congress awaited patiently the subsidence of the irrepressible conflict in the Artillery Corps regarding its reorganization. I myself have heard read by artillery officers, at a symposium, papers of diametrically opposing views upon this subject, sustained with great heat of argument. I venture to believe that at this moment some of our best military minds would differ seriously as to the ideal system of military organization for our republic. I am equally persuaded that if the army as a body, or even its ablest men, were well united on a policy and would earnestly advocate it, it would be enacted in due course by Congress.

I also find consolation in the thought that nearly all our military shortcomings can be paralleled, and many of them exceeded, in some of the monarchies whose conditions are supposedly favorable to perfection. We never have had anything half so atrocious as England's purchase system, nor has the body of our officers ever been so lacking in technical accomplishments. If current reports, the impressive warnings of Marshal Roberts, and Parliamentary criticism are to be accepted, the demoralization of her peace establishment has been

and is something for which we can offer no parallel. The favoritism and speculation in Russia's official *personnel* is unique in character and scope. The rottenness of the Second Empire in France I have already alluded to, and the chaotic and demoralized inefficiency of Prussia's organization before the reforms of Scharnhorst and Hardenberg is a matter of history. Modern France, although a republic, has of necessity modeled her system upon those of her neighbors. She has the conscription and the huge army imposed by her position. The conscription has never been other than galling, and there are signs of considerable demoralization in her rank and file under its operation. It should be a matter of rejoicing with us that our isolation exempts us from the necessity of following in her lead.

I turn to the constructive portion of Colonel Pettit's able paper with more satisfaction. With much of it I find myself in hearty accord. His summary of a small regular army kept in the highest efficiency, with sufficient, pay to entice good men, and with satisfactory promotion laws, is very much to the point. His idea of a paid regular reserve seems to me a very good one, and that of a militia paid partly by the United States and partly by the States has much promise. My own suggestions, elsewhere expressed, would go somewhat further and deeper.

Starting with the same axioms, *i. e.*,

1. That conscription is out of the question.
2. That a large standing army is equally so.

I add the following:

3. That the ultimate reliance in war time must be upon volunteer levies or draft.
4. That these levies should be wholly under national control and officered by the War Department.
5. That the *supreme function* of the Regular Army in time of peace is *to educate a large body of men fit for line commissions in the volunteer force.*
6. That the best preparation of the rank and file for our volunteer levies is by every expedient to encourage universal marksmanship in time of peace.
7. That the system of military discipline and control based upon the autocratic ideas of automatism and the destruction of individuality are alien to the spirit of the age and especially to our social and political system, as well as to the demands of modern warfare; and that individuality and high intelligence in the enlisted soldier and a more cordial entente between him and his commissioned superior are necessary to the efficiency of modern armies, and not only compatible with, but essential to, the highest and best discipline.
8. That we are on the verge of very important modifications of our political and social system which will react powerfully on military service, and that these agencies must be considered in any scheme of military organization.

To my thinking the mere possession of an available first line of

50,000 men is, although important, relatively insignificant in comparison with the work which can and should be achieved by this force during the intervals of ten, fifteen, twenty or more years between wars. *If it is not made a school during this time the outlay for its existence, except for the three years sufficient to make it an effective fighting body, has been mostly thrown away.* If there be an interval of fifteen years between wars the country has been paying for its enlisted force some \$20,000,000 a year for an almost useless national police—enough in twelve years to build the Panama Canal.

The resultant value to the nation of an army of only 50,000, or even 40,000 of high grade and thoroughly schooled men, graduating a large proportion of its number every two enlistments, with service diplomas and volunteer commissions in their pockets good on presentation in time of war, would, to my thinking, be incalculably greater than that of an army of three times the size and of the present type. Pay these army graduates, as proposed by Colonel Pettit, an amount sufficient to hold them to monthly reports, and exact an agreement to serve when called upon within a term of years. The pay of such an army should be so high—at least twice as high as at present—as to ensure the standard required; and the army must be so concentrated as to make its schooling thorough and effective for officers and men. It is to be noted in this connection that there is some movement reported in the French Army to educate its enlisted men.

I desire before closing these comments to express my earnest conviction that one of the paramount problems for the earnest study of military men is the social one. It can no longer be ignored or slighted with safety by the soldier as beyond his province. His destiny, as well as that of the community at large, is infoliate in that issue. The social labor question is advancing upon the stage with great strides, and may be upon us in a political form at any moment, Unforeseen contingencies may precipitate it quickly, or it may develop more gradually with the years; but it is the issue of the twentieth century, and soldiers, in common with all others, should confront it with intelligence. Political economy and the history of social development, especially during the past century, should be an essential study of every educated soldier; and the army should remember that it is not an institution apart from and independent of its environment, having its genius and interests aloof from those of the civil community. The army is a body of citizens of the American Republic—a nation born on virgin soil, with social and political ideals totally at variance with those of the dynastic civilization of the old world—armed and trained for the defense of its integrity, and inspired equally with the civil community by the spirit of its institutions.

WEST POINT, N. Y., January 16, 1906.

Colonel R. W. Leonard, (late) Twelfth N. Y. Volunteers.

It is to be hoped that Colonel Pettit's paper on Democracy and the Army may be widely read, and that it may meet the eyes of those who shape our legislation. All matters pertaining to the national welfare, excepting the most important of all—our national safety, are thoroughly discussed in legislative halls and by the newspapers.

When war threatens, the people indignantly demand to know, why we are not better prepared.

It is also hoped that the paper will occasion a general discussion of the conditions under which we find ourselves.

Colonel Pettit dwells on the unfortunate employment of militia in our wars; no one however was ever under any illusion about the quality of these troops. Of course Congress knew that a well-trained Regular Army would be more useful and less expensive than the 527,624 alleged soldiers who were on the rolls during the War of 1812. All of our school histories deride the militia, and charge them with running away whenever engaged.

There were reasons in the early days of our history which explains the use of militia, and must be considered when this apparently short-sighted policy is criticized and condemned.

At the risk of being too discursive, some of the facts that governed the past will be noted for consideration.

The present government grew out of a loose confederation of the colonies in 1775. The purpose of this confederation was to secure a redress of grievances, and to establish our rights as free-born Britons.

The colonies desired autonomy; they wished to remain subjects of the Crown, but not the subjects of Parliament.

The unyielding temper of the King compelled the Declaration of Independence the following year—the royal wrath had been incurred, and it was not possible with safety to retrace the steps that had been taken.

The powers given to Congress by the federated colonies were, to make war, treaties, coin money and to regulate commerce.

It could not levy taxes, nor enforce its authority.

Such money as was raised by a State was expended by the State raising it as it thought fit.

A State raised, or did not raise, troops, according to its pleasure, and contributed money in the same way.

Men would join the ranks in an emergency and leave them when they thought the emergency had passed.

Samuel Adams wished to depend entirely on the militia, as in the good old days when the Pilgrim Fathers eked out their incomes with the bounties on Indian scalps.

Then the militia was fighting for money, not glory, and was composed only of good men—for the purpose. Samuel Adams, John Adams and John Hancock opposed every effort made by General

Washington to raise and train permanent troops; they aided every cabal and intrigue against him.

The colonies, or States, would never have agreed to the Constitution of 1788 if the sovereignty of each State had not been guaranteed and recognized.

Many of the demagogues who were delegates to this convention refused to agree to any constitution that would give any real power to the general government, and went home before it was completed.

There was a general dread of a standing army lest another Cromwell should appear on the scene.

The War of 1812 was bitterly opposed by the New England States. These States owned the greater part of the shipping and had the greater part of the carrying trade of the United States, and they preferred to submit to the insolent "right of search" than to have their trade suffer.

New England was incidentally the cause of the burning of Washington. Sir Harry Smith (Harrismith and Lady Smith of South Africa), who was on the staff of General Ross, says that the national Capital was burned very reluctantly by the army. Admiral Cochrane insisted that such were the orders and they must do it.

The purpose in burning the city was that the seat of government might be removed to New England, where the people were averse to the war, and might have influence enough to stop it.

In 1811 Josiah Quincy, of Mass., opposed in Congress the admission of Louisiana as a State, and in the course of his speech said that he was opposed to giving the wild men of the West the same privileges that belonged to the States east of the Mississippi (the thirteen original colonies and their territory) and that if the bill passed it would be the duty of his State, as it would be the privilege of all, to withdraw from the Union, "amicably if we can, forcibly if we must." This was the first note of secession that was sounded in public.

Dec. 14, 1814, delegates from the New England States met at Hartford to consider the question of seceding. On Dec. 24th the treaty of Ghent was signed and peace was declared. On the receipt of this news the Hartford convention dissolved, presumably destroying their minutes, as they have never seen the light of day.

Entertaining and feeling no love for the Union, there was naturally no wish for a standing army. A standing army would be a menace to the possibilities that each State considered. State troops would serve their purpose better.

In 1832, General Jackson found himself at a banquet of nullifiers; when he discovered the purpose of the gathering he rose and proposed the toast, "The Union, it must be preserved."

He was at once surrounded by his hosts, clamoring, "Not at the price of liberty."

President Jackson found a thousand soldiers, somewhere, and sent them to Charlestown under General Scott to preserve order.

Mr. Buchanan, in 1860, when the States were seceding, wrung his hands, saying; "They have no right to secede, but I have no authority to prevent it."

This reverence for State rights was not peculiar to any particular State. The orators of the past waxed eloquent on the sovereignty of their States.

The Union was but a rope of sand till the Civil War of 1861. That war settled one fact, viz.: that the compact between the States is an agreement that cannot be broken for any cause, be it dissatisfaction, be it injustice.

Our general government has now become strong. Power is gradually concentrating in Washington, and our army might keep pace with our navy; but a new enemy has arisen; an enemy quite as formidable as were State Rights.

The labor unions are growing stronger day by day. A few years ago there were many who demanded that General Merriam should be tried for interfering with the work of the mob of strikers at Couer d'Alène.

The bakers' union now opposes members of the union joining the militia, on the ground that they might be called upon to fire upon fellow unionists. Evidently the bakers are rising. Our population is rapidly changing its character. We are no longer the descendants of English colonists.

Immigrants now come here to better their condition, not from any liking for our institutions.

The Swedes are so strong in some parts of the Northwest that they *demand* that their children be taught in their native tongue in the public schools

Nearly one million immigrants came to this country in the year 1905.

There is no way to stop this tide of emigration, and preserve something of this land for our own posterity.

The steamship companies (foreign corporations all) are influential in legislative halls; they wish their ships to be crowded with passengers. The railroad companies have land to sell and wish the territory through which their lines run to be built up; they point with pride to the growth of the country, although this growth has brought people into the country who are more likely to become enemies, than friends to order, and good government.

The mine owners have done more than any to bring undesirable people into the country.

The unions are mostly composed of foreigners. They all vote; their votes are eagerly sought by those seeking office—those who

obtain office by truckling to this element are not likely to favor an army suited to the needs of the country.

The people who encourage this immigration, and who profit by it, are very rich and influential; they care little for the real welfare of the country—they love their country for the boundless opportunities it offers them.

There are some minor statements in Colonel Pettit's paper that may not be concurred in by all. For instance, governors appointing the officers for the volunteer regiments, thereby preventing regular officers from getting volunteer appointments.

The writer served in the Civil War, and remembers it quite well. What happened was this:

The Regular Army was small, and so many of its officers had gone South and had accepted commissions in the volunteers that there were very few left to serve with their regiments.

There were so many vacancies in the army that any civilian could get an appointment in 1861. There was a great demand for Regular Army officers to officer the volunteer regiments. Young fellows appointed to the army from civil life as lieutenants got colonelcies in the Volunteers.

"Does he know anything?" "Why of course he does, he is in the Regular Army."

All of the regular officers who showed any capacity became generals of volunteers. The appointments by the governors of States to commissions in the volunteers were quite as good as they would have been were they appointed by the President. There were about 2000 regiments on the Northern side; if the President had appointed the officers he would have done so on the recommendation of the governors, so it would have come to the same thing.

After the war was over, there were many officers of volunteers who were worthless as soldiers, or as civilians, appointed in the army; for years after one-half of the officers of the army sat on courts-martial, trying the other half. Something like this is going on at present, although it is possible that the courts may be dismissing "hands that the rod of empire might have swayed."

The strictures on the "raw levies" of 1898 invite a word of objection; not but that the raw levies would have done all that they are accused of doing had the opportunity offered, but it so happened that they were not there. They were at Chickamauga and elsewhere, quietly eating their rations, industriously drilling six hours daily, preparing for the great battle that was never fought, and practicing the latest novelty in sanitation. The most ignorant there knew more about sanitation than did the wisest in 1861-65.

The botch work and confusion at Tampa, and the landing in Cuba, was not the work of "raw levies." Everything connected with

that episode was arranged and directed by officers having nearly forty years' experience.

The errors of the past may be avoided in the future by some such plan as follows:

Let the regiments consist of three or four battalions, with an excess of junior officers, so that the details that seem to be unavoidable shall not strip a regiment of its company officers.

In time of war let the colonels and lieutenant-colonels command divisions and brigades, if they be physically fit.

Let each battalion be the nucleus of a regiment, the majors to be colonels and the captains majors.

Meritorious enlisted men and competent civilians for company officers.

The companies should have at least 150 men each; there should be an army service corps, too, instead of detailing men from the companies to the commissary and quartermaster's departments.

By this method the commanding officers would be men of experience, and influential second lieutenants would not outrank their proper captains; the recruits would be merged with men already drilled and accustomed to the ways of the service.

In time of peace the posts should be large—at least a brigade at each post. This would make life pleasanter for all, and would stimulate work and professional discussion.

Nothing is more disheartening to an officer than to have a mere handful of the men properly belonging to his command; he loses interest.

It is just as well to dismiss from our minds the employment of militia, excepting on extraordinary occasions. They are fencibles, and more should not be expected from them.

The militia should be composed of a good class of citizens. They should have regular and respectable employment, with families, or mothers and sisters depending on them.

They would go forth and suppress riots and help preserve order in their towns and States. One month under arms would be a long term of service. They cannot afford to leave their employment for a longer time.

So far as the pay of the army is concerned more pay would not secure more efficient service.

The aggregate amount of pay received equals the value of the aggregate amount of work performed.

Everyone gets pay according to rank. It is not possible to pay one more and another less, according to deserts.

Men enlist from various motives. In time of war many mechanics give up well-paid work that they may see what war and soldiering are like, and to find out if it be what General Sherman says it is.

In peace times there are always some who dislike regular work; they enlist and make the best soldiers.

Men who like to work will not enlist. Sometimes a workman may be out of a job and will enlist for the winter; he goes with the snow. Possibly he turns up again on some succeeding winter, in another corps and with another name.

Desertion can only be prevented by suitable punishment. Shooting in time of war, branding in time of peace.

Lieut.-Colonel Harvey C. Carbaugh, Judge Advocate U. S. A.

The organized and active land forces of the United States (30 Stats. L. 361) is composed of the Army of the United States and of the organized militia of the several States. In time of war the Army of the United States is to be composed of the Regular Army, the organization act for which is dated February 2, 1901 (31 Stats. L. 748) and the Volunteers, the organization act for which is dated January 23, 1898 (30 Stats. L. 361).

The organization for the militia of the several States is prescribed by Act of Congress dated January 21, 1903 (32 Stats. 775).

The militia act, in my opinion, is a most worthy law to foster the organized militia and increase its efficiency, so as to make it a real aid to the federal authority of the United States in time of peace or emergencies, and to enable it to properly perform its duty as a State force.

I know of no more difficult task than to hold together an efficient National Guard organization. It involves making use of the social desires of its members and the judicious exercise of modified disciplinary measures. It is aided by a growing desire of the American citizen to have a title of some kind prefixed to his name, which desire seems to be at least partially satisfied by a military title. The National Guard does much to keep alive military spirit and advance military knowledge among our people, and thus more than repays the United States for the appropriations expended for its armament and instruction. It is not organized and maintained by the States as a federal reserve in time of war, but it has always been one in such exigencies either by individuals or organizations. Its efficiency should not be disparaged, but commended. As has been truly said, it is a long step from knowing how to do a thing to doing it, but it is a still longer step from *not* knowing how. Even the limited experience and instruction of the National Guard is therefore of considerable value from a national standpoint. The Volunteer Act of the United States recognizes the fact that the organized National Guard may be utilized in Federal exigencies. It provides "that when members of any company, troop, battery, battalion or regi-

ment of the organized militia of any State shall enlist in the Volunteer Army in a body as such company, troop, battery, battalion or regiment, the regimental, company, troop, battery and battalion officers in service with the militia organizations thus enlisting may be appointed by the governors of the States or Territories, and shall, when so appointed, be officers of corresponding grade in the same organization when it shall have been received into the service of the United States as a part of the Volunteer Army." The same act permits the governors of States, with the consent of the President, to appoint one officer of the Regular Army to each regiment of the volunteer army at the same time.

This act was supplemented in March 2, 1899, by a special act to give the President of the United States greater power of organization and in the appointment of officers in the volunteer army. The excellent results obtained from the 35,000 troops organized for Philippine service under that special act show that the Volunteer Act of 1898 should be remodeled in time of peace so that the Volunteer Army shall be a national one, both in fact and in law.

The main body of volunteers must come from the unorganized militia of the country. The practical question is, What can Congress do for the unorganized militia, so that from it and the organized militia there may be mobilized in a brief period an effective volunteer force? Our earliest statutes, those of 1792, required actual enrollment of all able-bodied citizens of the United States between the ages of eighteen and forty-five in the militia and the appointment of local captains. Their execution was never undertaken and they have been recently repealed. The present law declares that the militia shall consist of citizens between those ages, but it only provides instruction for the organized militia to be known as the National Guard.

Granting that democracy as illustrated by our form of government is weak in its military policies and plans to mobilize an efficient army for international or internecine war, what can be done to utilize such elements of strength as we do possess and eliminate our inherent weaknesses? One of the direct results of our democracy is individualism instead of collectivism in our people. We have no Shinto religion to bind the individual to obedience to orders issuing from governmental authority, directing him to do in camp and march and to die on the field. These results can only be obtained by us through individual courage and loyalty. I believe our people are more courageous than brave. We have found it difficult to prevent raw troops from breaking when first brought under the baptism of an enemy's fire. This is largely due to their being "gun shy."

Throughout our industrial life men daily risk their lives without fear in certain ways, because they are in the habit of doing that particular thing. Let them undertake something less dangerous

which they are not accustomed to and the result is fear. As to fear arising from the sound of gun fire, our civilization is increasing it because hunters and woodsmen are less numerous, in fact and in proportion to our numbers, than at the breaking out of the Civil War or preceding wars. Familiarity with weapons and the sound of gun fire increases a man's bravery and enables the courageous element in his nature to overcome inherent lack of bravery. To remedy such defects we should establish federal rifle ranges near our many military posts, and under the direction of the army, or the National Guard on their own ranges, give systematic instruction in rifle practice annually at the expense of the United States to such members of the unorganized militia who will sign a certificate that it is their intention in time of war to volunteer for the military service of the United States. This will give a practical working basis for a federal reserve. It will tend to the organization of federal gun-clubs of private individuals, if the ranges for practice and facilities therefor are provided by federal or State aid. The appropriations made in 1905 for the national trophy and medals for rifle contests are steps in the right direction. While such contests stimulate interest, they result in overtraining of the few without any instruction of the many. Five hundred thousand dollars per annum will furnish 100 rounds of modern ammunition to each of 200,000 men for instruction in rifle practice under capable instructors from the Regular Army or the organized militia.

To the schools of our country—private, public, State and national—we must look for the military training in drill for the youth of our land. This training should be fostered and supplemented through use of the magnificent armories of the organized militia, by moderate federal appropriations, judiciously expended, to assist the organization and drilling of cadet corps. We should not cry for the stars in the shape of an organized national reserve. It will only lead, like most legislation on such subjects, to showings on paper. Better get down to bed-rock and accomplish something substantial in the way of practical military education of the population from which our armed forces must be drawn and leave magnificent schemes, such as organized national reserve, to the unemployed theorists. Organization can be quickly effected, but instruction and equipment come slowly. Provide in peace for the last two and at the approach of danger the first will not be a source of dangerous delay.

The War Department has never been forehanded in military matters. We always blame lack of appropriations on Congress, but it is the duty of that department to study, formulate and submit to Congress in time of peace, for its approval, workable plans leading to effective mobilization for war.

Positive law can be secured in time of peace which will take from the burden of the President in exigencies the appointment of a

large number of officers, which appointments must under such circumstances be made on incomplete information under the powerful pressure of political and personal influence. Such positive law would enable him to withstand those influences and that of the press of our country in the execution of laws already on the statute books. Why not plan in advance the organization of at least one division of an army from each State, and keep up to date on the rolls thereof the names of competent persons eligible for appointment as officers therein. Let their qualifications be carefully prescribed in time of peace and their eligibility be limited to five years from date of qualification. I do not mean that such qualifications shall be established by written examinations on general educational subjects or military subjects, but those practical qualifications which go to make a man who can be depended upon to perform his duty. Let political and personal efforts to get on the eligible roll for officers be made in time of peace instead of at the breaking out of war when claims of military worth cannot be thoroughly investigated.

Lieut.-Colonel Charles J. Crane, Military Secretary.

Colonel Pettit deserves the gratitude of the army and the thanks of the nation for the boldness and fidelity with which he has presented his views.

The subject is one on which history has thrown many sidelights, showing the previous workings of our institutions and their various influences on our army in peace and in war.

The article before us shows very plainly the great disadvantages under which we have struggled in our wars and the small probability that we will not have to always fight a waiting fight, gradually getting into condition, at stupendous cost to the nation, in blood and treasure. Our salvation lies in the great distance, by water, between us and other great nations.

This distance would insure our having several short weeks in which to put on foot the force which would encounter the first wave of invasion; and the army thus sent to the field would have to hold off the invaders until we could in some measure properly prepare our hurriedly-raised and hastily-organized armies of volunteers.

Colonel Pettit has given only too true a description of the difficulties which in the past have made success so nearly impossible of attainment, and he has shown us the close connection between said difficulties and our democratic institutions.

He has also shown us how and why we can never be properly and perfectly prepared for a land war with any great nation, and traces the causes for this, not so much to our form of government,

as "to our traditions and the sense of security engendered by our great strength."

Finally a scheme is presented embodying Colonel Pettit's ideas as to how to "most effectually utilize our particular democracy in the organization and discipline of our armies," being confident that because of our men and our money "the safety of our great democracy is assured in the end."

The extent to which "democracy affects the organization and discipline of our armies," as shown by the history of our past, is ably and well set forth by the author.

Unfortunately, it is not pleasant reading, it is too true, but a knowledge of the many and great errors of the past will surely tend to enable us to avoid falling into so many and such great ones in the future, and Colonel Pettit's article is a bold and faithful presentation of the facts in the case.

In discussing "How can we most effectually utilize our particular democracy in the organization and discipline of our armies," Colonel Pettit correctly accepts it as a decree of fate that "we shall not have properly organized and disciplined armies for war," and clearly shows how our democracy prefers the latent-strength idea.

But he makes some very excellent suggestions regarding our preparation in peace for the war that must inevitably come.

His inferior limit of 75,000 men as the proposed strength of the Regular Army, capable of expansion to 150,000 on the eve of war, is beyond question or argument and is most moderate indeed, for he well knows that our country will not even consider the idea of a large standing army.

The scheme for a Regular Army reserve reads well, but I doubt its feasibility as a practical measure.

It presupposes that Americans will enlist in sufficient numbers for the regular term of service, notwithstanding a proviso in their enlistment contract that would bind them for five years' service in the reserve, and that the men who should enlist with such understanding would be on hand in sufficient numbers when needed to justify this scheme.

I believe that great difficulty would be found in getting our young men to accept such an enlistment contract, and that very few of those who would accept it could be discovered when needed for service in war.

But if enough men can be induced to take service under such conditions, a very small percentage of available reserves would justify the scheme, for these men would be able to shoot and they would possess those other soldierly characteristics which cannot be imbibed within the time limits of any short service in a camp of instruction or during years of service in any State organization.

However, I believe the following scheme would bring more ex-

regulars back into the ranks with their old comrades, or into the ranks of the volunteers, where their services would be of even greater value.

Let each soldier who is honorably discharged on completion of enlistment be entitled, on again enlisting for active war service, to some bonus of value in money, or to some great increase of pay during that enlistment.

No little two dollars a month increase of pay for such re-entry into the service during war conditions will awaken the interest of the average old soldier who has most likely found profitable employment as a civilian.

Let him know that he will also have, during this new enlistment, rank at least as good as that which he held at date of discharge.

I have spoken of volunteers. I was thinking more especially of United States Volunteers, liked those used in Cuba and in the Philippines.

It is believed that the services of these volunteers, especially those sent to the Philippines, were so very satisfactory as to surely demand, in case of war, a repetition of the scheme, modified to suit the existing circumstances.

The principal reason for the superiority of the second lot of U. S. Volunteer regiments over the first lay in the fact that they contained about four times as many regular officers and a still greater proportion of enlisted men with previous service.

My recollection is that the Twenty-eighth Infantry, U. S. Vols., contained about fifty per cent. previous service men, and the Thirty-ninth Regiment about thirty per cent. of such men.

It is believed that great numbers of honorably discharged regulars would join United States Volunteers, knowing that the field-officers of said Regiments were to be regulars and that they themselves would receive at least as good rank as they had when last discharged, with certainty of much better pay.

To provide several regular officers for each regiment, United States Volunteers.

We know that in case of war a great many regular officers would obtain service with increased rank with the volunteers, notwithstanding the fact that their absence from their regular organizations would woefully cripple them.

Regular organizations are already, in time of peace, greatly crippled by the many and various details of selected officers for the General Staff, recruiting service, college details, duty with State militia, instructors of the U. S. Military Academy and at the different service schools, aides to general officers and military attachés.

The minimum number of such details which is absolutely necessary can and should be fixed by law, and an increase given us of the

same number of officers of the several grades required to perform those duties.

The army has a right to expect this consideration from Congress.

We need the additional officers even in peace time, and in the event of war they would increase the number of regular officers to be rendered available for the more important duty of quickly making fine soldiers out of the regiments of U. S. Volunteers which will surely be raised.

In addition, every officer leaving the service honorably should know that, in case of war, he will be offered with U. S. Volunteers a grade at least as high as that vacated by him in the regulars. Many of these former regular officers would make most excellent material from which to select field-officers and regimental staff-officers.

Also let each cadet who leaves the U. S. Military Academy honorably after remaining there till the end of his third class year know that, in case of war, a commission of second lieutenant with U. S. Volunteers awaits him.

And the graduates at a number of military schools, especially the agricultural and mechanical colleges of the different States, can furnish good company officers for such regiments.

But they should be informed that their services in such capacities will most likely be highly acceptable.

In order to render these several classes of men quickly available when needed with U. S. Volunteers for war service, their whereabouts should be always known at the War Department, and their addresses kept constantly corrected up to date.

The method outlined would supply regular field-officers for many regiments of U. S. Volunteers, and many good company officers and regimental staff-officers for these troops.

The force of expanded regulars closely backed up by at least as many U. S. Volunteers would have to be depended upon to do the first work done, the delaying the enemy until the appearance of still other volunteers—the State volunteers—composed greatly of the State militia and officered almost entirely by their own officers.

For the "second line," which is to consist of the State militia and its reserve, the plan submitted by Colonel Pettit is good.

In case of a real big war, hundreds of thousands of volunteers would have to be raised, and the first lot of State volunteers could have for their nucleus the State militia, who would retain practically the organization and personnel existing at the outbreak of hostilities.

In all volunteers, vacancies in existing regiments should be filled, in preference to raising new volunteer regiments.

The history of our past has placed the wisdom of such a measure beyond question.

Colonel Pettit's article should and will receive wide circulation, and he has rendered a great service to the country.

Major Charles E. Lydecker, N. G. N. Y.

It would seem as though Colonel Pettit had read Gen. Emory Upton's work, "The Military Policy of the United States," and on laying it down had taken a brief against Democracy to place all the shortcomings of our military life at its door.

The result is valuable and instructive; but democracies still have their superlative uses and necessities, and must stay, as the author evidently concludes by seeking to expound how to utilize their influence. The conclusion is emphatic that democracies are unaggressive except when united, have useless armies for conquest or aggressive war except when terribly aroused, and are really very poor forms of society for regular military purposes.

History, however, shows that empires and monarchies are not always creators of conquering armies. Napoleon III let his army become so demoralized that Germany conquered. Spain has exhibited the feeblest power of organization and perfection of military prowess, and our author opens his essay, after referring to Russia and Japan, with the statement that results cannot be laid to the form of government, while later riddling the work of our Congresses, Civil War chiefs and governors.

Probably the American people have cherished and fostered the elements of military prowess, as much, if not more, than any other nation, notwithstanding the deplorable examples of folly and wastefulness which are related.

When the story of the Civil War blunders is told, it is not pointed out that both sides were groping in the same obscure woods, and evolving the same forms of discipline in their fighting forces. What the country has had for one hundred years was what the people wanted. Washington, Knox, Calhoun, Thayer, could talk and write, but the democracy was busy with other things. The probability is that these other things were *for the time being* of more importance.

The greatness of this country has been developed by individualism. The enterprise of 10,000 individuals has been evoked by democracy, where but 1000 or less would have shown the same under the "permanent fixed military policy" of a monarchy. Who have invented or devised our ironclads, our great guns, our steel and other material for war purposes, our textile fabrics, our food supplies, our steam and electrical, and our surgical appliances? And to what extent has the spirit of liberty, independence and individuality sprung from the democratic form of government which has been ours?

The influence of democracy is all against the discipline of a strong army, and therefore the remedies which are suggested are not those of democratic influence. We must meet the necessity for discipline and organization by the influence of some power that will unite or will arouse these intelligent citizens.

What is that power? Is it fear of attack from envious or discommoded powers? Is it proof that our outlying provinces may revolt or be wrested from us? Is it proof that a great national mission is ours in which every patriotic son should begin to do his part? Is it conviction that military accomplishment is the foundation for the highest form of human activity and that our sons must all strive for them?

We may go along moderately sometimes without motive, but when it comes to creating a great national military reserve, some unifying motive must be found, or a democracy will not act.

Our author proposes a plan to yield a reserve of 70,000 men. Is that not a trifle when the reserve of this country should be one million men?

From time immemorial the talk has been of the militia; that means all able-bodied citizens. We have now self-educated militia under arms amounting to, say, 125,000 men. The growth of serviceable men in the militia of the United States depends upon motive, fair treatment and profit. Progress is being made steadily in that direction.

But it will not be fostered by any better plan than that which will give an incentive to young men to enter service and qualify themselves.

General Knox proposed that no man should be allowed to vote who (being eligible) failed to join a militia organization. Here is a hint. Given three requirements (one) such as the Swiss shooting clubs afford, (two) drill and discipline in a militia organization, (three) a simple examination in the duties of the service, or one arm thereof, as a prerequisite for some social benefit, and you have created an incentive.

Everything our author says is true and fearlessly put, but he has ended sadly, and with despair, when he says our national characteristics make it impossible to organize from the standpoint of experts. Even though all cannot be obtained in that direction, the great result that can be secured by wise action must make us hopeful.

Captain Matthew F. Steele, Sixth Cavalry.

Colonel Pettit remarks that "a careful reading of" General Upton's "Military Policy of the United States" will give a complete answer to the title of our essay." It, however, will only give the answer to the first half of the title; it will tell "how far does democracy affect the organization and discipline of our armies," but it will not answer "how can its influence be most effectually utilized?" Nor does Colonel Pettit's splendid paper answer this question. There is no answer.

We can fancy that in the army of Utopia every man's sense of his equality with every other man—the real meaning of democracy—would be coupled with a sense of equal responsibility which would hold him to duty and discipline. We know that even in real life this sense of equality may make for discipline during short periods in which the interest is kept alive by action and expectation and success. But such experiences do not try the discipline of soldiers. It is defeat and retreat, lack of confidence in commanders, long and dreary encampments and inactivity which try the discipline of soldiers.

In the late First Volunteer Cavalry the millionaire private fought as well, marched as well, worked as well and endured hardship as well as his comrade from the lower grades of social life; they all did as well as it was possible for untrained soldiers to do. But they were not subjected to any of the conditions that try discipline—that try the very souls of soldiers. It is not possible to believe that this regiment could have held together, as it existed in the Santiago campaign, for a year, or even six months, of dreary, disheartening service, such as has fallen to the lot of our troops in the Philippines, in Indian campaigns or during the Civil War. So far in the history of American troops nothing but military training has made the kind of discipline that endures. This fact is made very plain by the reading of General Upton's book.

But who has read General Upton's book, or will read it? Who will read Colonel Pettit's paper? I have not seen so much as a review or notice of General Upton's able work in any magazine or paper except our service journals. It is probable that not a single member of either house of Congress, and not a single person that will ever become a member of either house, has read General Upton's book through, or will read Colonel Pettit's paper. Probably not one hundred men in all this broad land, outside of the army, has had the patience and the interest to read that book through. And who can blame them? They are not interested in the subject. If by any means we can arouse their interest, they will read. Until our recent service together in the Santiago campaign and Philippine and Chinese waters, how many of us in the army took any real interest in the navy or cared to read the details of its needs and grievances? Many of us did not know the difference between a battleship and a cruiser.

Colonel Pettit asks "how can we either reason or frighten such a people into serious consideration of the words of Washington, 'In time of peace prepare for war?'" And, "How can we arouse our Government to the necessity for preparation, and how far will Congress go in granting the means?" The answer is, get the interest of the people and educate them. But how? This is a harder

question. It cannot be done in a year, in a decade, hardly in a generation.

We have a hundred officers and more on "college duty." The students at these colleges are the men that soon or late will make the laws of the country and control its policy. Cannot the officers on this duty teach the youth of these colleges something of the military policy of our past, and influence them to take an interest in the future military policy of the country? This cannot help matters in our generation, but it may save the country at some future time. "The watchful care of Providence" may not always be as kind to us as it has ever been in the past.

The impressions that a youth receives at college, the influence exerted over his thoughts and opinions by a tutor that commands his respect, last a long while into after life. Let the youth of our colleges be taught something of the *true* military history of our country; what they learn in the ordinary school history is but the merest fiction. Let them know the shameful conditions of the Revolutionary War, which would probably have left us British colonists but for the timely help of the French. Let them know the true story of our *opera bouffe* War of 1812—especially the Bladensburg Act, with the rôles played in it by the President, the Secretary of War and the rest of the Cabinet. Let them know the deplorable policy and politics which, from Washington, controlled the Mexican War and hampered Scott and Taylor in their operations; let them read Mr. Webster's speech in the Senate and learn from it the reward that General Scott received at the end of his brilliant campaign; let them know of the Administration's effort to have the office of lieutenant-general revived, in order to give it to Senator Thomas Benton over the heads of such veterans as Scott and Taylor. Let them know the truth of the unpreparedness, the politics and the mismanagement of the Civil War, which prolonged a struggle to four years which should have ended in a single campaign; which made the war cost the country as many millions of dollars as it should have cost thousands, as many thousands of lives as it should have cost scores; which, as late as 1864, left three men still in command of separate armies, not one of whom had done a single act worthy of a general, and all of whom had received their places and retained them, simply through political influence—they were Butler, Banks and Sigel.

Let the officers at our colleges try to change the American notion that generals are born, not made; and that every American is born a general; let them try to teach the youth that there is much a man must learn in the profession of arms before he has a right to command men in battle and look after their health and discipline in camp and march.

Above all, let them, if they can, teach the youth that there are

other offices and titles just as honorable as those in the military profession; other duties under the Government, even in time of war, just as patriotic; that it is more praiseworthy for a member of Congress, in time of war, to keep his seat and support the Government than it is to resign it and raise a regiment, which he does not know how to command. Of all the Congressmen who resigned during the Civil War in order to "take the field" as colonels or generals the only one whose duties as a soldier could not have been better performed by someone else possessing a military training was General Logan.

Allen C. Redwood, (Late) C. S. A.

Those who, in common with the writer, enjoyed the privilege of hearing Colonel Pettit's reading of his prize essay before the Military Service Institution on December 13th last, must have been impressed by his scholarly and comprehensive presentation of his theme in so far as it indicated the military situation as defined by the above title. So sound, indeed, are most of the views advanced in answer to the first query of the subject as to seem, to a mind trained in the school of actual warfare, almost in the nature of self-evident propositions. Within the scope of the paper—as applied to those institutions which bear upon the efficiency of the military power of the United States—the author's diagnosis of the case seems to have left little room for comment or cavil. In support of his argument, history seems to have repeated itself, almost without deviation, from the very beginning of our existence as an organized republic, and even before that, quite up to the time in which we live. Like the Bourbons, we have "learned nothing," but there the analogy ends; we seem to have forgotten most of the lessons we have had drilled into us by many and costly experiences in the past. The familiar story of the Arkansas squatter who did not mend his roof when the weather was fine because it "didn't leak *then*" illustrates the happy-go-lucky attitude of the American people upon all questions touching military policy so long as the emergency is not actually present.

But it is a far more simple matter to indicate the bane than to prescribe the antidote—especially when the patient persistently declines to take his medicine. This unwillingness seems to underlie—to constitute the *gravamen*, indeed, of the whole argument. The remedy suggested by the author—none too hopefully, it would appear—is met at the outset by this inherent optimism of the "sovereign people," which even confounds resources of men and means with the ready and efficient force which should represent these when the war-dogs are unchained; which holds fast to the theory of a special Providence having peculiar charge of the fortunes of these United States, and esteems all criticism but little less than "open blasphemy."

The preamble of the author seems really to embody the whole case, as it were, in a nutshell, indicating, as it does, the essential and antagonistic difference between democratic and military government. Granting the postulate that the latter is, and must be, in its very nature, autocratic and even despotic, it would follow "as the night the day" that *no* military policy can prevail which is subject to the will of the former unless it is backed by popular sentiment. Not only can this not be relied upon for the maintenance of a reliable military establishment in time of peace, it does little more than give the initial impetus when war is actually at our doors—all history proves this. No war of modern times ever had more enthusiastic popular support on one side or the other than did our American Civil War at its inception, yet both participants were driven to the expedient of compulsory service, in one form or another, before it had lasted a year. The comparison which the author draws between the Federal draft and the Confederate conscription, and the conclusion he derives therefrom, must be taken with a good deal of moderation. While the Confederacy escaped the evils attendant upon the bounty system—a Confederate bounty would have afforded small inducement indeed—there were still many leakages in the supposed *levee en masse* to which it resorted for the filling of its depleted ranks. Toward the end of the war the conscription included, *in theory*, all able-bodied males within the ages of sixteen and sixty—from eighteen to forty-five for active duty at the front, the others constituting what was known as the "second-class reserve," and being employed for local defense, guarding depots, prisons and the like, though many of them did duty along with the active class, in the lines before Richmond and Petersburg in the latter months of the siege. But there were many "ex-empts" upon one pretext or another, with official sanction, and many more who simply "took to the woods" and thus evaded service. While the Confederacy made probably as gallant a fight as history affords, yet it failed at last, less because its fighting power was exhausted, than for the reason that its people had lost interest and had ceased to back up the fighting line with efficient aid and sympathy. That "first law of nature," for the overcoming of which all military discipline has been devised, in the end reasserted itself, mainly owing to the fire in the war which was yet more formidable than that delivered by the ranks of blue, and "*sauve qui peut*" took the place of the Confederate battle yell which had so often presaged victory.

So long as our form of government remains as it is we shall probably continue to administer our military resources in the same wasteful and fatuous way that we have in the past—as we do with our forests, our game and all the other good gifts embraced in the goodly heritage which is ours—"after as, the deluge!"

The New York Sun.

In the United States the professional soldier has a feeling of detachment and futility. It is a long time between wars, and in the interval his profession is not appreciated by a people engaged in the arts of industry and absorbed in the discussion of social problems. He is marking time until his services shall be wanted, and unless he is a man of intellectual resources he may be eating his heart out at some forgotten post in the back-country. Philippine service varies the monotony of his life, but it is expensive and unhealthy, and isolates him from his womenfolk. No wonder he is out of touch with the spirit of American democracy and blames it for its want of sympathy with the profession of arms and its failure to maintain an effective military establishment.

Lieut.-Col. James S. Pettit, of the Eighth Infantry, has embodied the army view in an essay. He read it before the Military Service Institution on Governor's Island yesterday. "The very essence of military strength," said Col. Pettit, "is 'one-man power,' the strong commander whose wishes are paramount and must be felt to the lowest unit of the army." "A monarchy," he went on to say, "is more permanent, and can therefore establish a fixed military policy, so necessary to the building up of an army," Colonel Pettit seems to despair of getting a military establishment of the first class under American democratic institutions. "We are of sanguine temperament," said Colonel Pettit. "We believe in our star; we regard the law lightly; we place thousands of laws on the statute books, but are lax in enforcing them. These qualities in the military service make rigid discipline impossible. Deserters, sentinels asleep on post and guerrillas should be shot; but with us the penalty is rarely exacted. Military offenses count for nothing among civilians. Even Congress will not authorize sufficient punishment for desertion nor a reasonable reward for the capture of deserters."

"A great many of our people," said the colonel, "would oppose any substantial increase in our military organization. Labor was particularly hostile to it. Our patriotism is largely of the lip," he said. There, we think, Colonel Pettit was unjust, or had a lapse of memory. There is no more patriotic people in the world than the citizens of the United States when the call to duty comes, if that call be sounded from the battle-field, and it is the battle-field with which Colonel Pettit is concerned. There is a good deal of truth in his indictment, and it behooves us as a world power open to attack in the Philippines to pay more attention to the advice of the professional soldier than has been our want. The conditions he complains of resulted as much from our isolation as from the character and spirit of our institutions. Our institutions are a fixed policy, and there will be an irrepressible conflict between them and the demands made upon the Government

to support our authority as a world power. Our people do not balk when an increase of the navy is asked for. The emergency may come when we shall need a much larger body of troops than we have and a much more efficient army than can now be put in the field by volunteer enlistment. It is certainly the part of wisdom to create a nucleus for the military establishment which professional soldiers like Colonel Pettit declare to be necessary.

The New York Times.

* * * * *

The business of an officer who is at once a scientific officer and a patriotic American is to reconcile American institutions with the maximum attainable under them of military efficiency. To suggest the abandonment of the institutions is to reach the very acme of silly pedantry. And, as our correspondent suggests, the martinet who does that does not even know his own business. He entirely leaves out that patriotism which intelligently believes in the institutions of one's country as a factor in the national defense. Very evidently a backward nation which will accept the despotism of a "war lord" is in the stage of civilization which will tend to convert its "enlisted men" into brutes or machines. Evidently autocrats make automatons. Autocracies have an advantage in making war, where secrecy of counsel is a great advantage, over governments under which the question of making war has to be discussed and passed upon in the national "town meeting." If the President of the United States had the power of making war "on his own hook" without consulting anybody, he would also have the power of more effectively preparing to make war. But how wonderful that any American citizen or soldier should desire for him that power, even with its concomitant advantages. It is really the people of the United States who have alone the power to make war. How far fewer wars we have had than we should have had if a touchy Chief Magistrate had been able to plunge us into war whenever his personal susceptibilities seemed to him to be sufficiently involved. To wish that the President of the United States had that power is to wish for a recurrence of the times when war was held to be the normal and essential, and peace the abnormal and incidental, business of a nation. Colonel Pettit's watch is at least four hundred years slow.

And, even from Colonel Pettit's own professionally advanced and politically reactionary point of view, how do his conclusions relate themselves to recent military events? The Czar of Russia is an autocrat after Colonel Pettit's own heart. His soldiers are automata after Colonel Pettit's own heart. He has gone to war without consulting anybody but the Grand Ducal Ring and Admiral Alexieff.

And he has been most exemplarily and tragically beaten by a nation which exemplified in contrast the modern and democratic view of soldiering.

The Army and Navy Journal.

In his Seaman Prize Essay on "Democracy and Our Army" Lieut.-Col. James S. Pettit, Eighth Infantry, has, probably without meaning to do so, touched the critical portion of the American public on an exceedingly sensitive spot. He has been audacious enough to assert that a democracy based on the will of millions of people expressed through devious channels is inherently weaker and less efficient in the conduct of military affairs than a monarchy headed by a wise and powerful chief. He holds, moreover, that a monarchy, being more permanent, can more readily establish a fixed military policy so necessary in building up an army, and that a consistent, definite policy, even though it contains some defects, is worth more than one which is constantly changing. For these and other views projected along similar lines, Colonel Pettit's essay has brought upon him a vast amount of ill-considered criticism from various newspapers, some of which are quite convinced that he is imbued with the spirit of imperialism and of hostility to our free institutions.

One has but to read Colonel Pettit's valuable essay carefully, however, to realize that the critics have altogether mistaken the author's purpose and misunderstood his meaning. His real intent is not to point the inherent defects in our complex governmental organization for the cheap pleasure of sneering at them, as certain writers pretend to believe, but to suggest how, even in spite of them, our military system may be raised to a higher level of efficiency and stability that it has occupied hitherto. In pursuance of that intention he calls attention to the factors and tendencies which, under a government like ours, make it difficult to develop the military spirit indispensable to the maintenance of an army which shall be national in the true sense of the term. The division of authority in military matters between the federal government on one hand and the State governments on the other; the use of political influence to secure appointments to the army in time of emergency; the custom under which the office of Secretary of War is usually assigned to a civilian without military training or experience, and the complacent national belief that, being a righteous nation devoted to peace, the Lord will take care of us against every peril—these elements all combine to discourage true military development. We are ruled by an arbitrary and irresponsible popular opinion which, through a certain sublimated optimism which is at once benevolent and baleful, treats military service as inconsequential and renders it well-nigh impossible to maintain that rigorous discipline which is indispensable to an ef-

fective army. "A government with these characteristics," says Colonel Pettit, and none will deny the statement, "cannot maintain an organization or discipline comparable to that of little Japan."

We have yet to learn, though we never may, that popular sentiment alone cannot be depended upon to draw men of the desired quality into the army—Washington discovered that "there must be some other stimulus besides love of their country to make men fond of the Service." How, then, can we utilize our particular democracy in the organization and discipline of our armies? It is to this important question that Colonel Pettit addresses himself and he discusses it with a degree of earnestness, patriotism and sound judgment that will command the unqualified approval of every student of our military problems. He considers compulsory service to be out of the question, just and valuable as it would undoubtedly be, and a careful survey of our military history, our persistent refusal to profit by the teachings of experience, and the indifference of Congress and of the States to the vital need of preparedness, all lead him to the belief that we shall witness no substantial increase in the Regular Army "until a public sentiment is created for it through some disaster to our country."

Colonel Pettit proposes a scheme, however, which, if applied, would give us a substantial and permanent basis of military defense.

* * * * *

Colonel Pettit's project deserves careful study. It is broad, evenly-balanced and organized in a spirit of fairness to all interests. One of its most striking features is that it proposes a plan of militia reorganization along lines which involve no infraction of the rights so jealously claimed by the States with regard to their citizen soldiery, thus avoiding a difficulty which has almost invariably confronted other movements having the same general object in view. For that reason alone it deserves the serious attention of the authorities concerned in militia interests.



Annual Report—1905.

To the Members of the Military Service Institution.

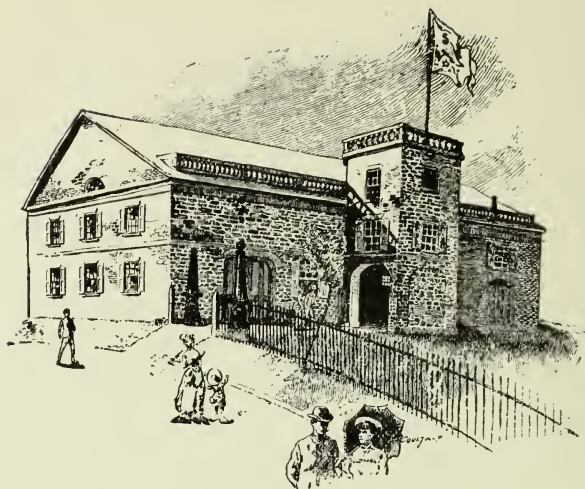
GENTLEMEN: The Executive Council has the honor to submit its report for the past year, as follows:

There has been an increase in membership, including associate membership, during the past year, owing in large part to the efforts of the Committee on Membership, whose action to such end continues.

Increased interest in the general work of the Institution is evidenced by an increase in the number of original essays offered by members for publication in the JOURNAL, and by testimonials volunteered from various sources as to the quality of the papers selected for publication. For the Gold Medal for 1905 ten essays were received and referred to the Board of Award. During the past two years general meetings have been called for the reading of papers by members on the invitation of the Council and for discussion thereon. The attendance at these meetings, of which timely notice was given, was good, and the results gratifying both as to the quality of the papers presented and the expressions of commendation by those present. In addition to the immediate effect of such meetings, the wide publicity given thereby of the operations of the Institution, must have beneficial results. It appears from the report of the Finance Committee that an unusually large expenditure became necessary owing to a required change of quarters in moving to and fitting up the new rooms for occupancy.

It is expected that the quarters now occupied will be at the disposition of the Institution until a permanent place may be provided for its use.

T. H. RUGER, *President.*



THE MUSEUM OF THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES,
GOVERNOR'S ISLAND, NEW YORK HARBOR.

Editor's Bulletin.

The
Gold
Medal.

At a meeting of the Executive Council held at Governor's Island January 31, 1906, it was resolved "That, in view of the failure of the Board of which the Assistant Secretary of War is Chairman, to agree upon any essay as worthy of the Gold Medal, that prize shall not be awarded" for the year 1905.

* * * * *

Award
of
Prizes.

That the essay signed "Scarlett" be, and it is, awarded First Honorable Mention, carrying the second prize of a Silver Medal and \$50; and that the essays signed "X. Y. Z." and "Two Bars" be awarded "Honorable Mention." These *noms de plume* were Capt. E. M. Johnson, Jr., Eighth Inf.; Capt. Earl C. Carnahan, Pay Dept., and Capt. John H. Parker, Twenty-eighth Inf., in order of mention.

Reduction
in Number
of Short
Paper
Prizes.

At a meeting of the Executive Council held at Governor's Island January 10, 1906, the following action was taken: "Whereas, the objects to be attained, through the establishment of prizes for short papers on subjects confined to each of the several arms of the service—Infantry, Cavalry and Artillery—have been secured, and it is now found to be advisable to consolidate under one Board of Examiners the papers offered in competition by officers of these three arms,

be it *Resolved*, that the Buford (Cavalry) Prize, and the Hunt (Artillery) Prize, be consolidated with the Infantry (Hancock) Prize, and which shall be hereafter styled the Hancock (Line) Prize."

**Length
of Short
Papers.**

The Council has amended the Rules for Short Paper Prizes so as to read "that the paper shall contain not less than 1500 words nor more than 3500 words." (See "Announcement.")

**"Reprints"
and
"Reviews."**

On account of the unusual space required in this number of the JOURNAL for "Comments" we are compelled to omit the departments of "Reprints" and "Reviews."

**The
Gold
Monogram
Badge.**

The supply of the gold monogram badge of the Institution having been exhausted, the Treasurer is unable to fill promptly a number of applications received. An order has been placed with Tiffany & Co. for a quantity of monogram shields with an improved pin, which will be ready for issue in a few days.

**Life
Membership**

Life Membership in the MILITARY SERVICE INSTITUTION is becoming popular, to judge from the increase in applications and requests for information on the subject. One payment of \$50 relieves a member from further annual remittances and entitles him to all privileges of perpetual membership.

**Our
Foreign
Exchanges.**

Among our English exchanges the *United Service Gazette*, under its new management, appears to supply, to the satisfaction of the British Army and Navy, current official news together with intelligent comment on military matters in general. The tendency to increase the number of military magazines nominally devoted to the interests of special corps or arms of service has its latest illustration in *The Army Service Corps Quarterly*, "edited in the Army Service Corps School of Instruction, Aldershot," the initial number of which has recently come to hand. It is a small, well-printed pamphlet and so far as it is confined to the history of military supply and transportation will be welcomed by military students in the United States, where the creation of such a corps in the Army has long been advocated and seems in a fair way to become

law. Other topics such as "Napoleon, Did He not Anticipate National Risings in Spain and Portugal," "The Roman Troops in Chester," "The Military Genius of Rome," etc., belong to the class of military literature of which the *Journal of the Royal U. S. Institution* and the *United Service Magazine* are more appropriate channels of publication.

Errata.

Article on "Modern Military Magazine Guns," Vol. XXXVIII, No. 139, JOURNAL MILITARY SERVICE INSTITUTION, January-February, 1906. Page 55, footnote, next to last line: "requires the butt" should read "require the bolt."; page 65: In first whole paragraph the word "Mauser" should read "Mannlicher."

**Recent
Accessions
to the
Museum.**

The Museum has been enriched by the loan of several large bronze bas-relief portraits of Civil War leaders, comprising Generals Sheridan, Wright, Pleasanton, and others; also bronze statuettes of "Sheridan's Ride" and "The Cow Boy," for which Theodore Roosevelt was the model. The portraits are from the life, and most of the bronzes bear the autograph testimony of the originals as to their truth. They are all the work of the American sculptor, JAMES E. KELLY of New York, the author of the Buford Statue at Gettysburg, and the Equestrian Statue of Fitz John Porter.

**Bronzes
and Other
Curios.**

A valuable and interesting collection of relics and trophies collected during the war with Spain and in the Philippines, has been temporarily deposited in the Museum for safe keeping and exhibition by Captain Evan M. Johnson, Jr., Eighth Infantry, on the eve of departure with his regiment for Manila. They consist of captured Spanish swords, Igorrote and Negritos' bows, arrows and spears, etc. It is probable that in future many officers ordered abroad will avail themselves of the opportunity to deposit similar curios in the Museum, thus saving the cost of storage elsewhere, pending their return to the United States. ¶



Journal
of the
Military
Service
Institution

1878

1906

Governor's
Island
N. Y. H.

THE JOURNAL

MAY-JUNE, 1906



SOME of the papers approved for early publication in JOURNAL for the year 1906.

- I. "THE ENLISTED MAN'S CONTRACT WITH THE GOVERNMENT; THE MUTUAL OBLIGATION IT IMPOSES AND HOW ITS VIOLATION MAY BEST BE AVOIDED."—Honorable Mention Essays, 1905.
- II. "THE SWISS MILITARY ORGANIZATION."—By Captain T. Bentley Mott, Artillery Corps. (Official Report, June 12, 1905. Publication authorized by 2d Division, General Staff.)—Continued from March Journal.
- III. "THE ADMINISTRATION OF A TROOP OF CAVALRY IN THE NATIONAL GUARD."—By Capt. Herbert Barry, N. G., N. Y.
- IV. "THE QUARTERMASTER'S DEPOT AT ALEXANDRIA DURING THE CIVIL WAR."—By Brig-Gen. J. G. C. Lee, U. S. A., (late) Asst. Quartermaster-General.
- V. "THE RIGHT OF ASYLUM." (Including the rescue of belligerents by neutrals at sea.) Graduating Thesis, Department of Law, Staff College, Fort Leavenworth, Class of 1905.—By Capt. W. D. Coanor, Corps of Engineers.
- VI. "WHO LOST THE BATTLE OF WATERLOO?"—By Col. R. W. Leonard (late) U. S. V.
- VII. "HOW TO MAKE RIFLE PRACTICE A SUCCESS."—By Capt. Herschel Tupes, 1st U. S. Infantry.
- VIII. "OUR MILITARY INDIVIDUALISM; THE RELATION OF AMERICAN CHARACTER TO IT AND THE IMPORTANCE OF ITS EFFECTIVE DEVELOPMENT."—By Lieut. Frank Geere, Artillery Corps.
- IX. "PROPOSED SYSTEM OF RANGE FINDING FOR INFANTRY."—By Lieut. F. W. Griffin, Artillery Corps.
- X. "AUSTERLITZ; A REMARKABLE FORCED MARCH."—By Frederic L. Huidekoper. (From the French military archives.)
- XI. "TYPES AND TRADITIONS OF THE OLD ARMY." "Extracts from the Diary of an Army Surgeon, 1833-48." (With portrait and facsimiles of original drawings.)

THE PUBLICATION COMMITTEE invites contributions of original papers, translations and comments upon current topics. Attention is called to "Gold Medal," "Seaman," "Short Paper," and "Santiago" prizes described elsewhere.

The Military Service Institution.

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Lieut.-Col. C. J. CRANE, Military Secretary.
Brig.-Gen. F. S. DODGE, Paymaster General.
Capt. F. DRAKE, A. D. C., National Guard, Pa.
Brig.-Gen. W. S. EDGERLY, U. S. A.

Lieut. A. P. S. HYDE, Artillery Corps.
Capt. J. H. PARKER, Twenty-eighth Infantry.
Col. J. W. POWELL, U. S. A. (retired).
Capt. W. C. RIVERS, First Cavalry.
Capt. J. RONAYNE, Twenty-eighth Infantry.
Lieut.-Col. A. C. SHARPE, Thirtieth Infantry.
Capt. J. A. SHIPTON, Artillery Corps.
Major A. SLAKER, Artillery Corps.
Capt. M. F. STEELE, Sixth Cavalry.
Capt. P. E. TRAUB, Thirteenth Cavalry

MEMBERSHIP AND DUES.

Membership dates from the first day of the calendar year in which the "application" is made, unless such application is made after October 1st, when the membership dates from the first day of the next calendar year.

Initiation fee and dues for first year \$2.50; the same amount annually for five years subsequently. After that two dollars per year. This includes the Journal. Life membership \$50.

NOTE.—Checks and Money Orders should be drawn to order of, and addressed to, "The Treasurer Military Service Institution," Governor's Island, New York City. Yearly dues include Journal.

Please advise promptly of changes of address.



Gold Medal—1906.

First Prize—Gold Medal, \$100 and Life Membership.

Second Prize—Silver Medal, Honorable Mention and \$50.

I.—The following Resolution of Council is published for the information of all concerned:

Resolved, That a Prize of a Gold Medal, together with \$100 and a Certificate of Life Membership, be offered annually by THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES for the best essay on a military topic of current interest, the subject to be selected by the Executive Council, and a Silver Medal and \$50 to the first honorably mentioned essay. Should either prize be awarded more than once to the same person, then for each award after the first, a *Clasp* shall be awarded in place of the medal.

1. Competition to be open to all persons eligible to membership.

2. Each competitor shall send three copies of his essay in a sealed envelope to reach the Secretary *on or before January 1, 1907*. The essay must be strictly anonymous, but the author shall adopt some *nom de plume* and sign the same to the essay, followed by a figure corresponding with the number of pages of MS.; a sealed envelope bearing the *nom de plume* on the outside and enclosing full name and address, should accompany the essay. This envelope to be opened in the presence of the Council after the decision of the Board of Award has been received.

3. The prize shall be awarded upon the recommendation of a Board consisting of three suitable persons chosen by the Executive Council, who will be requested to designate *the essay deemed worthy of the prize*; and also in their order of merit those deserving of honorable mention.

In determining the essay worthy of the prize, the Board will be requested to consider its professional excellence, usefulness and valuable originality, as of the first importance, and its literary merit as of the second importance. Should members of the Board determine that no essay is worthy of the prize, they may designate one or more essays simply as of honorable mention; in either case, they will be requested to designate one essay as first honorable mention. Should the Board deem proper, it may recommend neither prize nor honorable mention. Should it be so desired, the recommendation of individual members will be considered as confidential by the Council.

4. The successful essay shall be published in the Journal of the Institution, and the essays deemed worthy of honorable mention shall be read before the Institution, or published, at the discretion of the Council, which reserves the right to publish any other essay submitted for a prize, omitting marks of competition.

5. Essays must not exceed ten thousand words, or twenty-five pages of the size and style of the JOURNAL (exclusive of tables), nor contain less than five thousand words.

II.—The Subject selected for the Prize Essay of 1906 is

“WHAT SYSTEM OF PROMOTIONS AND RETIREMENTS WILL SECURE THE HIGHEST DEGREE OF EFFICIENCY IN THE COMMISSIONED PERSONNEL OF THE U. S. ARMY?”

III.—The Board of Award for 1906 is as follows:

Major-General ARTHUR MACARTHUR, U. S. A.
Brigadier-General HENRY C. HASBROUCK, U. S. A.
Colonel STEPHEN C. MILLS, Inspector-General.

GOVERNOR'S ISLAND, N. Y.,
Jan. 1, 1906.

T. F. RODENBOUGH,
Secretary.

Short Papers Prizes

(Rules amended January 10, 1906.)

Resolved, That the by-laws relating to Short Paper Prizes be, and they are, amended as follows. (See also "Editor's Bulletin").



WINFIELD S. HANCOCK.

Hancock (Line) Prize.

The HANCOCK PRIZE: \$50, and *Certificate of Award*; to be given for the best original essay or, paper, critical, descriptive, or suggestive on a subject directly affecting the Line, published in the JOURNAL OF THE INSTITUTION during the twelve months ending May 1st of each year and which has not been contributed in whole or in part to any other association, nor has appeared in print prior to its publication by the Institution, nor has been published in the JOURNAL in any previous year, and excluding essays

for which another prize has been awarded.

The award to be made under existing regulations for the Gold Medal, excepting that the paper shall contain not less than 1500 words nor more than 3500 words, and that but one copy of each paper shall be required from the author.

The Certificate of Award to be signed by the President and Secretary of the Institution and the award to be made upon the recommendation of a committee of three members of the Institution, not members of the Executive Council, of whom one shall be an artillery-officer, one a cavalry-officer; and one an infantry-officer, to be appointed, annually, by the president; the award to be made and announced not later than July 1st of each year.

Fry (General) Prize.

The FRY PRIZE: *To be the same as the Hancock Prize* and awarded upon the recommendation of a board of three members of the Institution, not line officers or members of the Executive Council, under the same regulations for papers or essays appearing in the JOURNAL during the twelve months ending September 1st of each year on subjects directly affecting the military service and not otherwise provided for, with the announcement not later than November 1st.



JAMES B. FRY.

GOVERNOR'S ISLAND,
January 1, 1906.

T. F. RODENBOUGH,
Secretary.



Seaman Prize, 1906

MAJOR LOUIS L. SEAMAN, M.D., LL.B. (late Surgeon, 1st U. S. Volunteer Engineers), has founded a prize in the MILITARY SERVICE INSTITUTION OF THE UNITED STATES by contributing annually for the best two essays on a subject named by himself, approved by the Executive Council; prizes as follows:

**First
Prize**

One Hundred Dollars

**Second
Prize**

Fifty Dollars

**Conditions
of the
Competition**

Competition is open to all Officers or ex-Officers of the Army, Navy, Marine Corps, Marine Hospital Service, Volunteers or National Guard.

Three copies of each Essay on the subject must be transmitted to the Secretary of the Institution to reach his office not later than November 1, 1906. Each Essay must be limited to 15,000 words, exclusive of statistics.

All other conditions will apply as provided for the Annual (Military Service Institution) Gold Medal Prize.

"MILITARY HYGIENE; HOW CAN THE PEOPLE OF THE UNITED STATES BE EDUCATED TO APPRECIATE ITS NECESSITY?"

The Board of Award for 1906 is announced as follows:

Brigadier-General ALFRED A. WOODHULL, U. S. A.

Colonel VALERY HAVARD, M. D., U. S. A.

Captain EDWARD L. KEYES, M. D., (late) U. S. V.

T. F. RODENBOUGH,

Jan. 1, 1906.

Secretary.



The Santiago Prize.

THE NATIONAL SOCIETY OF THE ARMY OF SANTIAGO DE CUBA has founded a prize to be known as the "Santiago Prize," by contributing, annually, the sum of

Fifty Dollars

"for the best original article upon matters tending to increase the efficiency of the individual soldier, the squad, company, troop, or battery, published in the Journal of The Military Service Institution of the United States, during the twelve months ending December 1st in each year.

"The award to be made by the Council of the Military Service Institution upon the recommendation of a board of three suitable persons, selected by the President of the National Society of the Army of Santiago de Cuba, who shall report their recommendations on or before January 1st of the following year.

"Conditions to be the same as those prescribed for the Hancock Prize (see notice 'Short Paper Prizes'), Military Service Institution, excepting that the competition shall be limited to officers of the Regular Army or of the National Guard below the grade of major, and that papers shall not be less than 2500, nor more than 5000 words in length."

The names of the gentlemen selected for the Board of 1906 are as follows:

Brigadier-General ADELBERT AMES, U. S. V.

Brigadier-General HARRY L. HASKELL, U. S. A.

Lieut.-Colonel HENRY A. GREENE, General Staff.

T. F. RODENBOUGH,

GOVERNOR'S ISLAND, N. Y.,
January 1, 1906.

Secretary M. S. I.

Publisher's Department.

THE NEW TIFFANY BLUE BOOK

The annual reappearance of the little Tiffany Blue Book presages the near approach of the Christmas season. The 1906 edition just out is the first to be issued from the firm's new Fifth Avenue marble building, and it concisely describes the largely increased stock, special manufactures and rich importations assembled for the first season on Fifth avenue.

The problem of bulkiness developed by the annually increasing number of pages has been met successfully by a superior and much lighter weight paper. Although the new book has many more pages, it has been reduced one quarter of an inch in thickness.

As heretofore, there are no illustrations of Tiffany & Co's wares, a convenient alphabetical side index giving quick access to the diversified stock of this great establishment.

Tiffany & Co. always welcome a comparison of prices, and the freedom with which the minimum and maximum prices are quoted throughout this little catalogue is an evidence that the house as cordially invites a comparison of prices up on Fifth avenue as it always did in its old home on Union Square.

Altogether there are 530 pages with 1750 sub heads, under which the range of prices is given on upward of 6000 articles.

Upon application, a copy of the book will be sent to intending purchasers, without charge, by addressing Tiffany & Co., Fifth avenue and 37th street.

BORDEN'S CONDENSED MILK.

The oldest and most reliable brand of condensed milk on the market is the Gail Borden Eagle Brand. Gail Borden invented the Eagle Brand in the early fifties, and this preparation is now sold all over the world. It is both palatable and nutritious, and is especially prepared as an infant food, and we can safely say that more children are successfully raised on the Eagle Brand than on all so-called "infant foods" combined. It is pure and wholesome and is regarded as the standard of its kind, having received the highest award wherever exhibited.

Borden's peerless brand evaporated cream, which is unsweetened, has gained much popularity. It is adaptable to all purposes requiring milk or cream, and a few cans kept in the house prepares one for the emergency which often occurs when the milkman either does not call or leaves a short supply. The superiority of the Borden products is owing to the scientific methods and close observance to rigid sanitary regulations and to the untiring efforts of the manufacturers to make these Brands stand pre-eminently the best on the market.

Wonderful as the development of the general industry has been, the growth of the Atlas Portland Cement Company's plants has been even more so. Beginning in 1892, at Coplay, Pa., with the modest capacity of 250 barrels per day, its production has steadily increased through the construction of plants Nos. 2, 3, and 4, at Northampton, Pa., and plants Nos. 5 and 6, at Hannibal, Mo., until now more than 32,000 barrels are manufactured each twenty-four hours, or approximately twelve million barrels per year. This production is greater than the combined capacity of any other four Portland Cement companies in the world. "ATLAS" Portland Cement is manufactured from the finest raw materials, under expert supervision in every department of the works. It is of the highest quality, being guaranteed to pass all usual and customary specifications, such as the specifications of the United States Government and those of the American Society for Testing Materials, which latter specifications have been concurred in by The American Institute of Architects, The American Engineering and Maintenance of Way Association, and The Association of Portland Cement Manufacturers. The quality of eastern and western "ATLAS" is identical, except that the eastern product is slightly lighter in color. By virtue of its enormous production, The Atlas Portland Cement Company is able to develop and retain in its service the most skilled operating talent in the Portland Cement industry, which insures a thoroughly reliable and uniform product.

"ATLAS" Portland Cement is guaranteed to be "ALWAYS UNIFORM."



JOURNAL
OF
THE MILITARY SERVICE INSTITUTION
OF THE
UNITED STATES.

"I cannot help plead to my countrymen, at every opportunity, to cherish all that is manly and noble in the military profession, because Peace is enervating and no man is wise enough to foretell when soldiers may be in demand again."—GENERAL SHERMAN.

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No. CXXXI.

FIELD TRAINING FOR THE UNITED STATES ARMY.

BY MAJOR FRANCIS J. KERNAN, GENERAL STAFF.



IN the period of time between the close of the Civil War and the outbreak of our war with Spain the mobile elements of our army—the cavalry, infantry and field-artillery—were stationed generally upon the frontier. That is to say, either along the Canadian or Mexican borders or else upon that interior frontier which marked the separation of the more thickly settled communities from those wherein the Indians were segregated. Guarding the advancing line of white settlements and the various railroads building through the Indian country kept our cavalry and infantry, and sometimes the field-artillery, fairly well employed. Here was a valuable school of training for officers and men. Long periods of field work were not infrequent, and often the entire winter, as well as the summer, months were spent away from garrison. The possibility of being called out at any time made it imperative that commands should be in readiness at all times to take the field on short notice. Transportation had to be ready and had to be sufficient, and the many details which go to make up completeness of equipment were not suffered to fall into neglect.

Toward the end of the period named the Indian question made less and less demand upon our soldiers. There was a transition from the remote frontier posts to larger posts built near the great cities, and as troops were gradually assembled

in the latter the invaluable opportunities for field training, so abundant in the old order of things, began to be lost to the service. And even as to those who remained at the remoter posts the comparative quiet of the Indians after 1891 left them more and more to that condition of garrison repose so fatal to the efficiency of troops. The era of post routine had arrived with its perfunctory drills on the parade ground, its monotonous ceremonies, its fringe of saloons with all the debasing influences which cluster about this lowest type of the grog-shop.

An appreciation of the new conditions soon began to manifest itself in various quarters. It was realized that the ideal school furnished in the past by the frontier service, wherein men learned effectively the soldier's trade, had closed its doors never to reopen. It naturally followed that officers began to make the best of the new situation, and a beginning was made at such field exercises and training as the restricted reservations and their immediate neighborhoods would permit. Considerable progress had been made along these new lines when the increasing discord between Spain and the United States culminated in war. This war, but more especially, and much more extensively, the Philippine insurrection which followed so closely upon its heels, gave once again the opportunity for the Regular Army to acquire education in the best of all schools—actual field-service.

The insurrection is over; the bulk of our mobile forces is again assembled in posts within the United States proper, and even that part stationed in the Philippine Archipelago is gathered in garrisons more or less permanent, and more and more does the daily life of the soldier abroad approximate that of his brother at home.

To the lay mind it may not at once appear why soldiers gathered at stations in the United States or abroad are not favorably situated for anything resembling complete training. Such, however, is the fact, as will readily appear upon consideration of garrison conditions in connection with the subject of the proper education of the soldier. The type of post established for sheltering our forces is substantially uniform. The reservations are small, varying from a few acres to many thousands, but those exceeding one thousand acres are exceptional. Upon the acquired tract the buildings are erected, and while the plan varies somewhat the result is usually about the same; that is, a cluster of buildings around a central parade ground. Some

of the buildings are barracks for the men, some quarters for the officers and still others go to make up the necessary quota for administration purposes, storehouses, etc.

Many of the posts are in the vicinity of large cities and, consequently, are planted in the midst of a settled community; that means denial of the adjacent land for purposes of military instruction, which must, perforce, be confined to the narrow limits of the reservation, and often to the parade ground. Posts of the type herein described are Fort Sheridan, twenty-five miles from Chicago, area 632 acres; Fort Snelling, seven miles from St. Paul, Minn., area 1531 acres; Fort Thomas, four miles from Cincinnati, area 111 acres; Fort Sam Houston at San Antonio, Tex., area 267 acres; Plattsburg Barracks, at Plattsburg, N. Y., area 679 acres; Fort Ethan Allen, five miles from Burlington, Vt., area 761 acres. These are merely cited by way of example. They are all large garrisons composed of cavalry, field-artillery or infantry, one or two, or sometimes three of the arms being represented. Types of larger reservations are Fort Assiniboine, Mont., 220,000 acres; Fort Sill, Okla., 77,800 acres; Fort Riley, Kan., 19,089 acres; Fort Clark, Tex., 3965 acres and Fort D. A. Russell, Wyo., 4512 acres.

Let us examine a little now the daily life and the possibilities of instruction in garrison. The soldier lives in a well-lighted, well-heated barrack. His meals are prepared by the company cook in a modern kitchen and set out for him in the dining-room at regular hours. He has an iron bunk with woven wire mattress and a comfortable bed. The bathroom is handy. There is usually a company barber and a company tailor. He has his drills upon the parade ground, his ceremonies, his guard duty and some fatigue work. But take it all in all his daily life is much that of a civilian boarding near-by. He is habitually garbed in uniform, but when not actually engaged upon some duty he disposes of his leisure hours as do the workmen of the community about him. The ever-present saloon affords him a place to drink if he has the inclination and the money. Sometimes he has credit; not infrequently he sells his clothing and so gets a supply of money temporarily and at tremendous interest. He plays baseball, goes to the theater, and his whole existence is differentiated very little from that led by men of his class in the community at large. Does that make him a soldier? To one who looks

upon the parade ground during the drill hour it might seem that his education was progressing; so it is, perhaps, but the limitations imposed by his way of life and his environment prevent effectually his progress beyond the mere rudiments of his profession. The close-order drill, proficiency in the ceremonies, the care of his person and his equipment, some knowledge of tent pitching, perhaps some lessons in cooking and in the formal duties of sentinels, are undoubtedly grounded in the man. The apparent monotony of it is not without compensation, for all the while he is acquiring discipline he is subordinating his will to the will of another; he is learning the difficult lesson of doing that which another tells him to do without hesitation and without question. In short, prompt obedience, the corner-stone of genuine discipline, is being formed in him and established as a habit. All this is exceedingly valuable; it is the beginning of his education, and it is an indispensable stage in his development. But is it all? Is it enough? If persevered in for three years, the full term of his enlistment, does it make the man a finished soldier? The answer is, No. The most important part is yet to come, and here we reach the point where our system fails. Under it, it is quite possible for a man thus half trained to go back to civil life without ever having made a good day's march or begun, even, that practical part of his education which fundamentally differentiates the trained and resourceful soldier from the amateur in uniform.

To give our men practical work in the field, under conditions akin, as near as may be, to those of war, and as soon as his garrison training will permit, is the problem now before us.

A great deal of absolutely necessary preliminary training, as indicated heretofore, can be given, and should be given, in garrison; but that done, we must take our material afield and there complete the transformation from a healthy man into a genuine soldier. He must be separated from the comfortable bed, the modern kitchen, the porcelain bath tub and the furnace heat. He must put on his field kit, pack the wagon and be off to live under conditions bearing a close relation to those which in time of war must surround him. The march and the camp and again the march persevered in afford the natural and indispensable opportunity for teaching practically all that which in garrison could only be prepared for, not actually done. Men thus have to bear the burden of the

kit, to care for the feet, to control their thirst, to pack and unpack their own belongings and the wagons, to make and strike tent, to put the camp in order, to start fires under difficulty, to make themselves comfortable for the night, let the weather be as it may. These things the soldier must learn; he picks up valuable knowledge every day, often unconsciously; he is, in fact, learning in the great school of experience those things he must have knowledge of and many of which he can become master of in no other way.

It is the fashion now of some to lay great stress on the necessity of educating the soldier, but too often it is apparent that a set of books as the means, and a stock of theoretical knowledge as the end, is what is meant. There is time enough for both sorts of training in the course of the year and abundance of time in the term of an enlistment to train the raw recruit into a thorough soldier if we go about it the right way. But if we permit the man to spend practically all his time in garrison, while he may master the rudiments of his profession, he cannot get beyond the elementary stage, and may take his discharge and revert to his civilian status devoid of that practical knowledge grounded on his own experience, which is the real soldier's most valuable asset.

How then is the problem to be solved? How can we give our men the field training absolutely essential to their development? The answer, as before indicated, is that he must be severed from his post life and must go forth to live in tents under the open sky. Here, however, there confronts us at once a practical difficulty. If the garrison be put in march from many, indeed from most, of our posts, the moment the boundary of the reservation is passed the command is limited to the highway. Troops may be marched and doubtless, if arrangements are made in advance, places for nightly camps may be secured, but not always without difficulty. Hemmed in by the fences on either side, under the jealous eyes of the proprietors of land, marching may be done and nothing else. Now marching is highly beneficial. It hardens the men; it enables them to become accustomed to their burdens and, if camps sites are had, the experience of making and breaking camp is invaluable. Even without the latter experience, and when the march is merely out of the post and back again by nightfall, some benefit is gained in physique, some little knowledge added to the previous store. But this is far from enough.

There must be target-practice; there must be exercises and maneuvers requiring a varied and a more extensive terrain. There should be a progressive and complete schedule of exercises covering all the ordinary duties and experiences of war, such as attack and defense of convoys, advance and rear guard formations, reconnoitering, etc. All these may be most readily worked in along with the day's march, but manifestly they are all prohibited when a command is limited to the public road. There must be, too, attack and defense of positions, complete instruction in extended order over varied ground, night marches and night attacks, road sketching and reporting and many kindred exercises simulating, as far as practicable, the conditions of actual campaigning. All require ground; and the more extensive the ground, the more varied its features, the more readily can variety of exercises be secured, and new conditions dealt with and new problems devised.

Training of this sort is indispensable. Without it our soldiering is more or less of a failure. We may satisfy the eye at parade or please the multitude on the Fourth of July with a sham battle; but if transferred suddenly to a field where actual war was on our shortcomings would be soon manifested and our self-confidence much impaired.

There is a remedy for present conditions not difficult to apply, but still needing persistent effort on the part of those who are responsible for the efficiency of our troops. The United States is still a sparsely peopled land. Unimproved tracts still exist in every quarter of the country extensive enough for military purposes, and in all respects suitable for camps and for every variety of field training within the knowledge of the profession. There should not be a moment's delay in setting about this important task. A policy should be agreed upon, a plan adopted, and every effort made year by year to compass the desired end. That end should be the acquisition by the United States for military purposes of large tracts of land so situated as to serve for the place of field training for a group of posts. These should be selected with care and with a view to serving all the arms. Exclusive jurisdiction should be obtained and a sufficient and pure water supply arranged for. The year should be then divided into two parts corresponding to two kinds of training, and a systematic course entered upon which should know no interruption save what might come from actual war.

One part of the year should then be devoted to garrison training; the other to field training. Whatever part of the soldier's education, including, of course, his schoolroom work, can be advantageously and properly taught in the post environment should be assigned to this portion of the year. In the other portion the whole garrison should take the field, proceed by marching to the designated rendezvous and then go into camp. Other garrisons pertaining to the same group would join; an officer of suitable rank would command the camp, and a system of field exercises and general field training should be adopted and carried through upon a prearranged program.

I have sufficiently indicated, already, how the soldier's experience here would round out his knowledge and make of him the kind of man we need when war really confronts us. Apart from that, it may be affirmed that the soldier would be a more contented man and the officer better off in every way.

We hear much of desertions. Numberless theories as to the causes have been advanced. The causes are certainly many and diverse; some may be reached and cured—some are peculiar to the individual man and are beyond all help. Undoubtedly the monotony of garrison life, conjoined to its abundant temptations, has much to do with producing that frame of mind and that combination of circumstances which produce desertions. If five or six months of each year were spent upon the road and in camps, with a variety and abundance of interesting occupation, a healthy state of mind unfavorable to desertion would result. This is not mere theory; no one who has seen a command leave a garrison on a practice march with the prospect of a considerable absence can have failed to be struck by the singular cheerfulness of the men. Whatever happens becomes a joke. Wet or dry, hot or cold, nothing effectually dampens the good spirit that prevails generally. This is quite a different attitude of mind from that which results from a spell in garrison. Men become critical about their food, their number of nights off guard; grumbling is plentiful and dissatisfaction easily produced. In the field there is left behind the customary fringe of saloons, and a wholesome tone of mind follows upon days of honest fatigue and nights of sound sleep. Desertions are rare from commands on the march or in camp by comparison with the number occurring in posts. In brief, so far as the enlisted man is

concerned, there can be no doubt that field-service fosters contentment and keeps the mind satisfied, while garrison life has rather the opposite effect.

These annual outings would serve incidentally another useful governmental purpose by affording the War Department ample opportunities to test new equipment, and the best way of transporting and using all the various articles with which a body of troops in campaign must be supplied. There has recently been adopted, for example, a set of intrenching tools for foot troops. It is a question as to just how these may be carried and used most advantageously and whether the types fixed upon are really the best obtainable. The annual camps here advocated would permit thorough tests of these, and any considerable fault in their manufacture or method of attachment would certainly be exposed, and needful remedies suggested.

The acquisition and retention of adequate military reservations in this country presents an extraordinary record of improvidence and want of professional foresight. In the days when the public domain was practically unlimited, and all that was needed to secure a suitable reservation was the setting aside of sufficient ground out of the public stock, no prospective glance to see what the needs might be seems ever to have been taken with the view of adopting a policy and adhering thereto. Temporary needs and conditions caused the establishment of posts, which was inevitable; and like considerations caused the abandonment or paring down of reservations, which was foolish. It may be that there are still suitable tracts of public land which ought to be withdrawn and set aside for military purposes; but our once extensive choice is narrowed now, and it is probable that the Government will have to pay a good price for that which it might once have had for the keeping.

That the time was considered ripe for adopting a definite policy with respect to our military posts, and adhering to it for the future, is evidenced by the fact that in 1901 a board of general officers was appointed by the War Department "to consider and report upon the location and distribution of military posts required for the proper accommodation, instruction, and training of the army as organized under the Act of February 2, 1901, not including coast fortifications. The board will make recommendations in detail as to which

of the existing posts should be retained or abandoned, and of those retained which, if any, should be enlarged and to what extent; and the location, size and character of such new posts as may be necessary, having due regard in all its recommendations to the proper distribution of the different arms of the service based upon strategic, sanitary and economical considerations. The board will also formulate and submit a project for the location, examinations and surveys to be made for the permanent grounds provided for by Section 35 of the Act of February 2, 1901."

The board entered upon its labors and rendered an exhaustive report in 1902, which was transmitted to Congress and printed as a public document. It recommended some of our posts to be held as temporary stations and therefore marked them for ultimate abandonment; others were designated as permanent, and still other new ones were recommended to be established. In all cases the size and composition of the garrison were indicated. It further recommended for the four permanent and extensive camp sites one in the vicinity of Chickamauga Park, Georgia; one in the Conewago Valley, Pa.; one at Fort Riley, Kan. and one at the Nacimiento Ranch, California. The establishment of four permanent camp sites for field instruction of regulars and militia had been contemplated by the provision in Section 35 of the Act approved February 2, 1901. Nothing further looking to the carrying out of that intention along the lines recommended by the board has been done, and it is well that the project was abandoned, because four camp sites are insufficient. We need many more, but on a smaller scale, where instruction can be carried on every day without the assemblage of very large bodies and without a tremendous bill for transportation, and a consequent appeal to Congress for large appropriations.

The United States has experimented with annual maneuvers on a large scale in 1903 at West Point, Ky., and at Fort Riley Kan., and again, in 1904, at Manassas, Va. These seem to have been suggested by similar large assemblages held in the continental nations of Europe. It is not believed that the size of our army or its distribution permit such plans to be carried out advantageously. They were experiments, perhaps, costly certainly, and the writer does not believe that they were of much profit to the great mass of those engaged, although the

experience was probably valuable for the general officers and some of the staff-officers who participated. The acquisition of four large tracts alone would tend to similar uses, *i. e.*, large bodies assembled for brief periods at great expense, and with relatively small benefit to those participating. What the army needs is a continuous diet of regular field training, not an occasional spectacular banquet of the Manassas type.

By way of illustrating how the desired instruction may be arranged for and carried out, let us take the group of posts where infantry and cavalry are stationed between Lake Erie and the Atlantic. They are in order from west to east: Fort Porter, garrison three companies of infantry; Fort Niagara, one battalion of infantry; Fort Ontario, one battalion of infantry; Madison Barracks, Headquarters and two battalions of infantry; Plattsburg Barracks, one regiment of infantry; Fort Ethan Allen, Vt., one regiment of cavalry and a battalion of field-artillery; Fort Jay, New York Harbor, 1 battalion of infantry. If the Government had a reservation in the north-central part of New York State, say in Herkimer County, it would be practicable to assemble from the posts just enumerated a brigade of infantry, a regiment of cavalry and a battalion of field-artillery. Here is a mixed command adapted to many exercises and capable of employment in the solution of a great variety of military problems. A general officer should command it, and the march thither and return would afford numberless and varied opportunities for instruction, as well as for a thorough toughening of the individual, and the field kit being borne, its burden would become familiar to every foot soldier.

In this particular grouping, which is merely cited by way of example, a part of the journey to camp might be made otherwise than by marching. The battalion from Fort Jay, New York Harbor, might, for instance, be carried by boat up the Hudson, and thence march overland to the rendezvous. Or that particular fort might be grouped with others to the south and have its camp in Maryland or Virginia.

To carry out the system herein outlined many more than four permanent camp sites are needed, and their location as well as their size and number would depend upon the group of posts to which the camps would be appurtenant. Money will be needed, but it may be remarked that we have money, and that Congress has already, in the legislation contained in

Section 35 of the Act of February 2, 1901, indicated its approval of the idea that the Government needs permanent camp sites. If the sums expended on the large gatherings at West Point, Ky., Fort Riley and Manassas had been invested along the lines here indicated, we should have already made a good start toward the realization of a rational and permanent scheme. It is not unlikely that in parts of the United States proper there may still be, as there certainly are in the Philippines and Alaska, tracts of Government land suited by their extent, character and location to fulfil the requirements of permanent military maneuver sites. If this be so no time should be lost in selecting and setting them aside for this purpose. The urgent necessity for them is emphasized by the efforts now being made by the War Department to have instruction camps during the coming summer and fall months. In drawing up a scheme to carry out this purpose the lack of suitable rendezvous becomes at once apparent, and because the Government does not own the proper lands the Department has been driven to select places ill-adapted to its purpose; locations, in fact, which go largely to defeat the very purpose had in view when the plan was undertaken, and the defects of which can only be palliated by having adjacent land. Plattsburg Barracks is such a place, so is Indianapolis, because neither reservation is large enough to afford anything more than ground enough on which to encamp the troops to be assembled.

To recapitulate briefly the plan which it has been the attempt to explain in this paper, it must be pointed out first that it embraces two distinct phases of training—one of the garrison, another of the camp. The first is preliminary and preparatory to the second, and will habitually be pursued in the winter months. The field or camp training will follow in the summer and autumn, and will include considerable marches from the posts to the rendezvous and return.

It is assumed that the permanent posts, are or will be, settled upon, their size determined, and the composition of each garrison fixed. This done, steps would have to be taken involving the co-operation of Congress by which for each group of posts there would be acquired a tract of land adapted by its size, by the character of its terrain and by its location to serve the purpose of a camp of instruction for the garrisons assigned

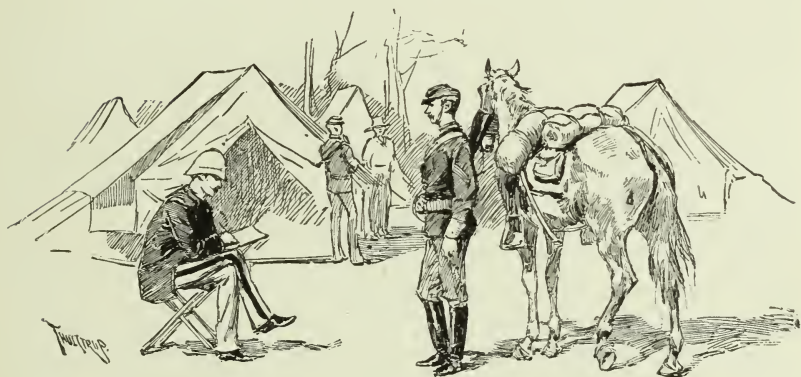
to it. Here target-practice and every possible variety of military instruction would be systematically pursued.

One of the obvious criticisms of the large manuevers hitherto attempted is that the men are not fitted to benefit by the problems undertaken because of a deficiency in their previous elementary training. That perhaps applies more forcibly to the militia, but to some extent it may apply to the regulars as well unless some of our posts are provided with more land. Fort Thomas, Kentucky, for example, is no place at present for adequate garrison instruction. It lacks the ground; the acres in that reservation are so cut up that it is a difficult task to impart a thorough knowledge of even the close-order drill. Concurrent, then, with the plan here submitted, there should be an enlargement, if possible, of those permanent posts whose present areas are too restricted for their quota of troops.

In the report submitted by the Board of General Officers convened in 1901, and referred to above, it is observed that some posts of one or two companies are recommended for continuance. Presumably, there were special reasons in the particular cases, but it is believed that for permanent occupation no garrison of less than a battalion or squadron should be maintained. Three general types would meet our needs; battalion posts, regimental posts and brigade posts, or stations garrisoned by several arms and equivalent to a brigade. With garrisons of less strength than a battalion any considerable training becomes impracticable, routine work and the care of the plant occupying the time and attention of the men. But posts of battalion size are valuable as affording experience in command to majors and, moreover, for other reasons we cannot expect to discontinue them. Regimental commands are logically the next in sequence. We have many posts of that size, and both for administration and training they are most desirable. Mixed commands equivalent to a brigade and straight brigade garrisons will give opportunity for our brigadier-generals to command troops in peace time—to become acquainted with the three arms while compelling the elements of the mobile forces to know and to understand each other. A few only of this type are needed, and the tendency of growth in that direction is so marked already that with a policy distinctly and continuously working toward that end there would be no difficulty, within a few years, in obtaining

the necessary number with ground sufficient for the garrison training.

If we had a graduated system of posts, as here suggested, coupled with a progressive scheme of garrison and field training, the soldier who spent an enlistment in the United States Army would know his trade. When such a man took his discharge and vanished to the eye in the mass of his fellow citizens, that part of the military power of the country represented in his person would not be wholly lost to the country; it would simply become latent. He would not have the scholastic finish to qualify him for the duties of the pedagogue, but he would have in him the elements of good citizenship and a potential usefulness to his country well worth the time and money spent on him in his soldier days.



THE DUTIES OF CAVALRY PRECEDING A GENERAL ENGAGEMENT, AS DEVELOPED BY TWO RECENT WARS.

BY CAPTAIN CHARLES D. RHODES, GENERAL STAFF,
UNITED STATES ARMY.



AFTER superficial perusal of the voluminous literature with which we have been favored by officers who have actually witnessed new and remarkable battle tactics of infantry and field-artillery, it was with certain misgivings that we undertook a critical study of the war duties of an arm which appeared to have given the military world singularly few *new* tactical lessons of value, in either the Anglo-Boer or the Russo-Japanese conflicts.

Up to the period covered by these recent wars, the tactical standards of cavalry operations were those of the Civil and Franco-Prussian Wars; nay, some famous Continental writers harked back to the days of Frederick and Napoleon. But in these days of progress in the mechanical arts, thirty years is a long period for tactics to stand still—a period which has seen the marvelous development of magazine, flat-trajectory long-range rifles, of smokeless powder, of quick-fire, shield-protected field-guns firing improved shrapnel, and of electrical communication, which, keeping pace with the tactical dispersion of troops, brings all subordinate units in touch with the commander-in-chief at a far-distant point in rear.

The cavalry world had every reason to believe that these two recent wars would clear up many conflicting opinions as to the modern use of cavalry. But the South-African conflict, fought over an abnormal terrain between an ill-trained, ill-led British cavalry and a meager, but exceedingly mobile, Boer mounted infantry, has furnished indeterminate data only. In the Far East, operating over a more normal territory, a numerous but ill-trained and poorly officered mass of Cossacks has timidly opposed the steady advance of the Japanese; while a poorly horsed minority of Japanese cavalry, well trained in the services of exploration and protection, have rarely dared to venture beyond supporting distance of their splendid infantry

and artillery. It was too precious in its reconnoitering duties to risk disaster by seeking combat, when its first duty was that of observation.

PERSONNEL AND ORGANIZATION.

As organization must precede operation, we cannot refrain from touching upon a few most important incidents in cavalry organization.

Nothing has stood out more clearly in these latter-day wars than the fact that cavalry personnel, both in officers and men, must be of a standard higher than has ever heretofore been reached, to be entirely successful under modern conditions. The present dispersion of cavalry requires rare physical condition to successfully resist fatigue, and it is a matter of experience that this dispersion also renders discipline more difficult to enforce. The successful use of the arm in the service of security and information has become so difficult and complex, that the highest intelligence is necessary.

In his evidence before the Esher Commission of Inquiry on the war in South Africa, Lieut.-Gen. Sir Ian Hamilton remarked:

I would preface these remarks by venturing to express my opinion that it is more difficult to be a good cavalryman than to attain distinction in any other branch of our service. Although every care may be taken to appoint only commanders who seem to fulfil all peace requirements, at least two or three of these apparently fully qualified men will certainly fail—perhaps with lamentable results in war.

It may be remarked as further evidencing the impression created in Great Britain by the cavalry experiences of the Boer War, that the British War Office has issued an order giving the preference in selections for cavalry service to the cadets *graduating highest at the Royal Military College*, justifying their action in this innovation by the statement that in wars of to-day there falls to the cavalry officer of all grades, duties of such weighty importance that they must possess the highest professional knowledge in addition to suitable mental and physical ability.

South Africa was a graveyard for the reputations of many cavalry commanders, and a most humiliating experience to the British public in their previous estimate of the personnel of the rank and file.

Turning to Manchuria, the apathy and inactivity of General Rennenkampf's force has caused constant wonder to those who

predicted great things for the Cossack cavalry; and while Mishchenko exhibited a few of the qualities of a cavalry leader in his raid on Niuchuang last January, he failed of his mission and produced no decisive effect on the result of the war.

Had they possessed a leader worthy of the name, says the *Times* correspondent, of the Russian cavalry, at the Battle of Mukden, they would easily have found an admirable field for their activity upon Nogi's front, flank and rear, and might have done much to restore the fortunes of the fight, no matter what character of fighting they preferred.

But the Russian cavalry commander held his large cavalry force southwest of Mukden without reconnoitering the Japanese left, so that General Nogi's decisive movement northward was unheralded and unopposed. The Russian troopers were, like their brothers of the infantry, heavy-witted peasantry, lacking in initiative and judgment and timid of responsibility. The Cossack of the terrible retreat from Moscow had deteriorated in morale, and his military training, had through a long period of peace, been allowed to lapse.

In contradistinction, the personnel of the Japanese cavalry was striking. Such was the importance attributed to their duties by the Japanese General Staff that they were selected from the most intelligent of the Japanese conscripts, and brought by persistent and laborious training, in spite of a lack of natural horsemanship, to a high degree of efficiency. In no previous war perhaps has the advantage of cavalry training been so thoroughly demonstrated as in this competition of the Japanese *versus* Russian cavalry. Although out-numbered by the Russians six to one, the Japanese cavalry performed their duties with such intelligence, judgment and precision, that life in rear of the advanced Japanese cavalry has been described by the *London Times* correspondent as a positive sinecure.

If we seek for testimony as to the absolute necessity of previous training for modern cavalry, and the uselessness of attempting to improvise cavalry from raw levies, call them what you will—militia, volunteers or yeomanry—at the declaration of war, the statement of Colonel Haig, Chief of Staff of General French's command and one of the most highly-accomplished officers of the British Army, is significant: "How long," he was asked by the Chairman of the Royal Commission investigating the South-African War, "would you say it takes to make an average recruit a good cavalry soldier?"

"I take it, that in four months you ought to train him sufficiently to ride in ranks; he is then able to charge, but I do not think he will have the intellectual knowledge to go on service. I think in a year's time he would be quite fit to take the field, but his scouting would be at fault."

"When would he be fit for that?"

"I do not think under three years."

In other words, the intelligence service required of cavalry under present conditions is so important, onerous and difficult, that hastily imparted, but necessarily superficial instruction after war is declared is almost valueless. It is an unquestioned fact that the wide dispersion of cavalry units over other arms of the service requires a higher standard of discipline, because the troopers are very frequently left to their own initiative, and are not under the eyes of their officers or even of their non-commissioned officers. Again, never before was such high physical training required of cavalry, because the *size* of modern armies and the *range* of modern guns requires greater flank marches by cavalry and oftentimes greater dispersion between units.

Altogether, both the more recent wars emphasize the fact that the most intelligent and physically fit soldiers are required for modern cavalry; and that never before was previous training in horsemanship, scouting and marksmanship of so much importance.

The sudden expansion of the British cavalry at the outset of the South African War brought into the ranks men totally untrained in horsemanship. The mounted infantry was even worse.

In some remarks before the Royal United Service Institution of Great Britain, Maj.-Gen. R. S. S. Baden-Powell, Inspector-General of Cavalry, stated as a conclusion of his experience during the Boer War:

It is at the outset that you want *all* your cavalry, and therefore it has to be prepared in peace time. Again, we must not be led into the error of thinking that improvised corps of volunteers, however willing, are any use as cavalry at first. They cannot be used to supply the place of cavalry that is deficient in numbers and quality. We have innumerable instances of both in our own campaign in South Africa, and in the very similar campaign of the War of the Secession. These gave us convincing proofs that it does not do to use improvised irregular or volunteer cavalry in the place of real cavalry, trained in peace time in the art of war.

The English, like ourselves, had no good system of expansion to a war footing, and this applied in the cavalry to both men and horses. In a war near home the cavalry is needed at the outset, as General Baden-Powell has said, to cover the mobilization and seize strategic points across the hostile frontier. In an over sea expedition the cavalry must, if practicable, *precede* the main infantry force, in order to secure a brief rest and acclimatization. Witness the exhaustion after debarkation of the cavalry in our China Relief Expedition. In the South-African operations the British infantry preceded the cavalry, and in consequence, the cavalry horses were, upon debarkation, rushed to the front without proper rest, without proper attention to their feet and without proper organization. Not until the battle of Bloemfontein was it apparent to the British commanders that disjointed cavalry organization at the beginning of a war is usually fruitless, a fact which was impressed upon us in our own War of the Rebellion. The British cavalry was for the first time united into two brigades two days before Bloemfontein, and entered that engagement with brand new staffs, and with little cohesion between squadrons.

The lesson to be learned is that cavalry should either be kept on a war footing, usually an impracticable condition, or be capable of immediate expansion when war is imminent. Again, it is unwise, to say the least, to wait until cavalry is actually in the presence of the enemy for organization into higher units of command. It should be united, occasionally at least, in time of peace; and the General Staff should have the brigade and division commanders, with complete staff, tentatively selected, and if practicable, given practical opportunity for experience in peace maneuvers.

It is gratifying to American officers to perceive how many cavalry lessons of the present day hark back to our great Civil War.

In 1866 Maj.-Gen. Emory Upton inspected the principal armies of Europe and Asia. One of the conclusions in his highly valuable report, reads:

Keeping in mind the fact that the 60,000 to 80,000 cavalry maintained from the beginning to the end of the Rebellion did not become really efficient till the Battle of Beverly Ford, in 1863, after it had been trained for nearly two years; that the expense of supporting it is double, if not treble, as expensive as infantry, we ought, from our own experience, to follow the example of European nations, and as far

as practicable maintain our future cavalry either on a war footing or else on a basis capable of such expansion as to meet quickly the demands of war.

Now as to modern cavalry organization, General Pelet-Narbonne, one of Germany's foremost authorities on the subject, believes two regiments of cavalry to each army corps necessary for tactical exploration; and for strategic exploration at least a division of cavalry of twenty-four active squadrons indispensable for each two army corps. He prefers that instead of assigning the cavalry of tactical exploration as divisional cavalry it be concentrated into a brigade of two regiments and placed under the corps commander. To carry out this plan and yet provide a certain proportion of divisional cavalry would require an increase in the German cavalry—a project which General Pelet-Narbonne proposes to meet with gradual increase in the cavalry arm each year, as in the creation of a naval fleet.

This proposition is mentioned as showing the latest trend of thought in regard to cavalry organization, in Germany as well as in France and England. In this connection we will quote from an address of Maj.-Gen. R. S. S. Baden-Powell, May 16, 1905:

The Germans now are realizing, after all their study, that cavalry is required more than ever. To their 485 squadrons they are now adding twenty-eight new ones, and the proportion they thus make with cavalry as compared with infantry is about five squadrons to every six battalions of infantry. France has about three squadrons to every five battalions. Russia has seven squadrons to every twelve battalions, and our (British) proportion is about nine squadrons to twenty-two battalions.

HORSE SUPPLY.

One of the most emphatic lessons of modern wars has been the appalling loss of horseflesh, which, other things being equal, appears to vary directly with the training of the troopers. We do not have to go to the Boer War for shameful statistics of such losses. We must not forget that during the first two years of the Civil War 284,000 horses were furnished our cavalry when the maximum number of cavalymen in the field at any one time during this period did not exceed 60,000 men.

The British Remount Department, which excited so much adverse criticism by its shortcomings during the Boer War, actually furnished from December, 1899, to January, 1902,

(about two years), 216,863 horses and 94,030 mules, when the British War Office had calculated on a maximum of only 25,000 animals, which would be required in case of war.

In December, 1900, what with casualties and the increasing use of mounted men in South Africa, the demand rose to the enormous number of 9600 animals per month, the normal purchase in time of peace having been but 2500 per month. The Remount Department naturally broke down under the strain.

If we return to the Russo-Japanese War we find a different state of affairs. The Russian Cossacks were mounted, Colonel Schuyler tells us, on small tough horses from the Transbaikalian region, resembling Chinese ponies, except Cossacks of the Don, who rode small, well-made horses of Arab breeding. A nation of natural horsemen, no matter what may have been their shortcomings as cavalry fighters, there does not appear to have been an undue loss of horseflesh, and the losses were systematically met by levies on the resources of Mongolia. Again, the animals were acclimated, accustomed to the food of the country and trained for long marches in all kinds of weather.

On the other hand, the Japanese, as we have already remarked, were not natural horsemen. They utterly lack that bond of sympathy between the real cavalryman and his mount. But, as in other things, the Japanese cavalry soldier appears to have overcome natural disadvantages by careful study of his shortcomings, and by skilfully applying the proper remedy wherever needed. With little or no sentiment for their mounts, they looked upon the question as a business proposition which required economy of the animals powers of endurance; and the *London Times* correspondent tells us that during fifteen months in the field, their requisitions for remounts amounted to but 50 per cent as compared with the British expenditure in their recent great war of 250 per cent for their cavalry, and of 400 per cent for the mounted infantry and irregulars.

One logical effect of the frightful British losses in horseflesh was their reduction of the load which the horse was required to carry; and just as this principle is now being agitated in several armies, with respect to the pack of the infantry soldier, we believe it is a question of growing importance to cavalry. It will be discussed later under "cavalry equipment."

Although during the Boer War strong factors of loss may

be found in hasty purchases of poor animals, in the weakening effect of a long sea voyage and in the foolish policy which rushed remounts to the front after debarkation, before becoming conditioned and oftentimes before being shod, the great lessons to be learned in this regard were the losses *due to lack of previous training of cavalry officers and men*, and the absolute necessity of an efficient system of supplying reserves of trained men and horses.

Such importance do the Germans attach to this question that they consider as worthy of the name, only cavalry which has been organized and trained in peace times, and they decry the employment of cavalry reserve units raised at the outbreak of war and mounted on requisitioned horses. In its appalling loss of horseflesh, as well as in absolute inefficiency, the uselessness of attempting to depend upon militia or yeomanry reserves is, for the cavalry arm at least, a fair deduction from the Boer War. Several British volunteer regiments were reduced to 100 horses, and the idea that by mixing regulars with the volunteers the latter would learn their duties, was proven fallacious.

Considerable losses in remounts are inevitable in modern wars; for aside from the increasing vulnerability of cavalry due to improvements in arms, greater distances to be traversed in both the tactical and strategic rôles, oftentimes with insufficient forage, will cause great fatigue.

Remount depots have become as essentially necessary for cavalry in time of war as recruit depots for all classes of soldiers. Casualties among the horses must be filled promptly, or cavalry loses its morale and efficiency. Regimental depots at the base, where dismounted troopers may refit, remount and rejoin the colors, and where lame and broken-down animals may be built up and conditioned, is not only a measure of great economy, but an absolute necessity in modern wars of any magnitude.

The British cavalry were ill-trained in what they are pleased to call "horsemastership," and had no remount depots worthy of the name. The Japanese cavalry subordinated many physical deficiencies to machine-like training; and carefully organized base depots as part of their comprehensive supply system. The results to the cavalry speak for themselves.

ARMS AND EQUIPMENT.

Although Germany (entire cavalry), France (seventeen dragoon regiments), Italy (the first ten cavalry regiments), Russia (the Don-Orenburg and Ural Cossacks), still retain the lance as part of the cavalry equipment, both the Boer and Russo-Japanese Wars have shown that it is unsuited for reconnaissance work, is superfluous for dismounted duty, and is inferior to the saber in a *mêlée*.

If there is one thing borne out by modern wars, it is that the cavalryman of to-day must be armed with a first-class firearm, and, within certain limits, as to weight and length, the nearer this arm approaches the range and accuracy of the infantry rifle, the greater will the independence of cavalry be assured. There are those who fear that arming the cavalry with such a weapon will destroy mounted initiative, such as was manifested by the Cossacks, and indeed in certain periods of the South-African War by the Boers also. But it is a tactical conclusion of unquestioned soundness that under present conditions cavalry must be prepared to do much dismounted fighting, and perception of the infrequent occasion when mounted charges will be effective must be a matter of education and training.

The great disadvantage of being outranged by the firearm of opposing infantry was an experience which early confronted the British cavalry in South Africa, and, it may be said, gave rise to the creation of mounted infantry—a force which found great favor with the British. The Mauser rifle of the Africans was a superior weapon to both the Lee-Metford rifle and carbine.

Lieut-Gen. Sir Charles Warren has stated:

The Boers had only to keep 2000 yards from our cavalry on the hills, and they could shoot them down with impunity or surround them. Practically, it may be said, that no advance could be made through a hilly country by cavalry armed with this weapon (the carbine) * * * * * When the history of the war is written, it will be found that the cavalry were unable to exercise their real functions in the hilly country of Natal, until after they had been served out with the infantry rifle.

Field-Marshal Lord Roberts also had very decided opinions on this subject. He stated before the Esher Commission:

The principal weapon that all our mounted men must have is the rifle. For the cavalryman—hussar or dragoon—the rifle must be the

principal weapon and he must have a sword as well * *
 * * * I hope to be able to prove to the satisfaction of cavalry, from history, that under the existing conditions of warfare the rifle must necessarily be the cavalry soldier's principal weapon, and the sword the weapon they may have to use occasionally. They should, of course, be perfect in both.

Both Japanese and Russian cavalry have been armed with excellent firearms, the Russians having the rifle with bayonet attached; and it was probably the fact that the Cossacks had discarded both lances and sabers that not a single well-authenticated case of shock action is recorded throughout the war. The Russian cavalry always dismounted for combat, and the Japanese cavalry, come from a nation of sword-worshippers, were forced by inferiority of numbers to do likewise. Hence we find the Japanese cavalry's battle allowance of ammunition per man was increased from thirty-six to 150 rounds; and each cavalry brigade was furnished with its own ammunition train instead of being supplied, as formerly, from the nearest infantry column. It seems clearly proven that in future wars the ammunition allowance of cavalry in its principal function alone—the service of security and information—will exceed expectations. It points to the absolute necessity of high development of fire discipline and of target-practice.

The questions of weight of the firearm (carbine or rifle), of carrying it on the horse or on the trooper's back, as did both Japanese and Russian, and of the amount of ammunition allowance, are all questions so seriously affecting the mobility of cavalry, as to require very careful study.

One of the most significant cavalry lessons developed by the Boer War is the absolute necessity of lightening the horse's load to a minimum, in order that the cavalry may fulfil modern cavalry requirements. Modern reconnaissances requires passage over vast distances, frequently as night operations, and the size of present-day armies involves wide flanking movements.

Maj.-Gen. Sir John French, the one cavalry leader of distinction evolved by the Boer War, has said:

The recent war proved that with the extended operations and increased mobility now necessary, it is impossible for the fighting men of any branch to be loaded up with the paraphernalia necessary for their warmth and sustenance at night. Articles such as picket-pegs, blankets, mess tins, cooking utensils, forage and rations must be carried by some light transport, either wheeled or pack, according to the nature of the theater of war.

of numerous officers before the Esher Commission is overwhelmingly in favor of retaining a thrusting saber.*

As is well known, the Japanese cavalry carried both saber and bayonet and the Russian cavalry the bayonet—the lance having been left in Russia. That the Japanese would not have occasion to use the saber would be a foregone conclusion when we consider their paucity of numbers, about 6000 against 30,000 Russian cavalry. The necessity for husbanding this little force for the important duties of security and information was most apparent to the Japanese General Staff, and we find few instances of their assuming risk of disaster.

On the other hand, the lethargic handling of the Russian cavalry is, as we have already noted, partly attributed to their tactical employment as mounted infantry. The *Times* correspondent tells us of the Cossacks, that,

In peace they are armed with the lance and sword, and in war they are asked to fight with rifle and bayonet. * * *

* * * Shock tactics in these days refer to the shock of cavalry against cavalry. Yet at Mukden it is undeniable that well-handled cavalry might have ridden over the Japanese, time after time. No observer of events and things in this war can doubt that the advent of a sufficient body of hard-riding lancers or swordsmen would have severely tried Japanese nerves. * * *

* So far as my information goes, the Russian cavalry west of Mukden never once took the offensive during the battle. Strapped up with rifle and bayonet, they are incapable of wielding the sword; their lances, except in the case of a small proportion of Cossacks, have been left in Russia. So it was useless to contemplate old-fashioned cavalry work. But the Japanese communications were an easy mark, and it is one of the most singular features of Russian tactics, that they did not avail themselves of so glaring an opportunity.

That opportunities will occur where the saber can still be used is evidenced from the mounted charge of General French's cavalry brigades on Boer infantry in position, supported by artillery, during his advance on Kimberly.

Four squadrons of the leading brigade, deployed with ten-pace intervals, constituted the first charging line; the second echelon followed at twenty paces distance; the second brigade followed 500 meters behind the left wing in column of squadrons. The remaining brigade formed the third line in brigade column. The first line took the gallop at 1600 meters and came under infantry fire at about 1200 meters. The British cavalry

*One officer of high rank, Maj.-Gen. Lord Brabazon, recommended a hatchet or tomahawk, to be hung from saddlebow.

broke through the Boer lines with a loss of but nineteen men. Fifteen dead Boers were found in their trenches.

Again we might quote from a lecture by Major Balck, of the German Great General Staff:

While most of the Boers and of the English at the beginning of the war held every attack as hopeless, the strange thing took place, that at the end of the campaign the Boers, who up to that time had been only mounted infantry, now actually attacked. * *

* * * At these attacks they held the rifle as horizontal as possible and delivered quick fire in riding forward. So about 2000 riders, on April 11, 1902, in two ranks, stirrup to stirrup, at a gallop from 1500 meters on, attacked a detachment of Gen. Sir Ian Hamilton's at Roival. The English scouts and riflemen pushed far to the front, who had already opened fire at great distances, were ridden over; then the Boers encountered the principal force at 600 meters. For the first time at about eighty meters the attack was shattered. The Boers left in the hands of the English, fifty-one dead, forty wounded, and thirty-six wounded prisoners.

Surely if 2000 irregular cavalry armed with rifle and bayonet can charge over 1500 meters of open ground, and actually reach a point but eighty meters from their opponents, with a loss of but six per cent, it is not yet time to discard the saber as an auxiliary arm for cavalry.

Before leaving this subject of equipment we shall only remark that the experience of both recent wars has shown that the metal of cavalry equipments must be of a dull finish and noiseless. The increased difficulties attending present-day reconnaissance by cavalry requires that no rattle of equipments, no ray of reflected light, shall betray the position or presence of the patrol or scout. As the hunter still-hunts the deer, so must the cavalryman of to-day perform his duties of security and information.

THE SERVICE OF SECURITY AND INFORMATION.

In the period covered by the military operations of Frederick the Great, opposing armies marched and camped in such dense masses, and within such comparatively short distances of each other, that generals or their representatives could usually reconnoiter in person. The information service of cavalry was therefore little developed. As armies grew larger and more complex in the Napoleonic epoch, the service of information or of exploration increased in importance, as did in a lesser degree that of security. In proportion to complexity of organization and tactical employment, and the necessity for putting in

motion thousands of different units before giving or receiving battle, it became the more necessary to secure ample knowledge of the enemy's movements in time to start the ponderous machine in motion. The cavalry became the eyes of the army, and although its rôle on the battle-field has become more or less contracted, and its rôle of exploration and protection rendered more difficult by improvements in arms and ammunition, its *strategic rôle* has expanded to immense proportions.

Why is cavalry reconnaissance more difficult than ever before?

Cavalry patrols in open country are easily distinguishable at long distances, while broken or wooded country permits of ambushes and surprises. This statement was as true 100 years ago as it is to-day, but at the present time cavalry is unable to tell from opposing fire whether it has hostile cavalry or infantry in its front. Furthermore, artillery fire is "serious" to cavalry at 4500 yards, and "effective" at from 3500 to 2000 yards; while small-arms fire is "serious" at from 1800 to 1200 yards, and "effective" at from 1200 to 600 yards. Observation patrols of cavalry can ordinarily, even with glasses, distinguish little or nothing of hostile battle lines at distances over 1800 yards; while if they advance closer, they risk being decimated by artillery or rifle fire.

Making due allowance for the shortcomings of the British cavalry in reconnaissance duty, the Boer War furnishes many examples of the difficulties attending present-day reconnaissance, in the face of an active mobile enemy, especially if well mounted and composed of good shots. At the Modder River, individual Boer riflemen began picking off the British advance scouts at 2000 yards. Unable to successfully reconnoiter the ground beyond the river, Lord Methuen believed it defended by a weak detachment only, and advanced to the attack. The Guards Brigade was met by a murderous fire at mid-range distance, and it was not until nightfall that the river was crossed.

At Magersfontein the British reconnoitering patrols failed to establish the number and location of the Boer guns, or to locate the real shelter-trenches of the enemy at the *bottom* of the enemy's supposed position.

In the advance on the Modder preceding the relief of Kimberley, the entire British cavalry, composed of several newly organized brigades, was retarded by the fire of a small Boer detachment on the right flank, which was not completely

silenced by artillery fire. Many other cases might be quoted to show how a small party of hostile sharpshooters may prevent the approach of reconnoitering patrols, and the gaining of important information.

It must be remembered, however, that British cavalry displayed a decided antipathy for dismounted scouting. There were occasions without number in which dismounted cavalry scouts should have crept forward, carbine in hand, and reconnoitered the Boer positions at close range, possibly after night-fall, or at early dawn.

In modern security service, one magazine rifle can deliver a heavier fire than several rifles formerly could. It is consequently most difficult for reconnoitering patrols to discover how strongly a position is held. After drawing the fire of the outposts, it is usually advisable to attempt to uncover one or both flanks.

During the grand maneuvers of the British Army in 1903, Lord Roberts made the following *critique* of the information service:

In South Africa we always attributed our failure to secure reliable information to the perfect knowledge of the country possessed by the Boers, and their ability to conceal themselves. Our maneuvers have, however, clearly demonstrated that long-range modern rifles, smokeless powder and the wide extension of the troops, render the obtaining of information difficult in the extreme. We have seen some instances where a small body of troops, well covered, has by rapidity of fire, produced the appearance of several battalions, and has caused the adversary to estimate a squadron as a brigade. This is one of the points we must give special attention to in the future, and officers employed upon reconnaissance must be prepared to run the greatest hazards if they desire to furnish to their chiefs really reliable information.

That somewhat similar conditions confronted the Russian cavalry in Manchuria is shown by the following quotation from a lecture delivered by Captain Engelhardt, of the Nertchine Cossack Regiment:

In reconnaissance, the cavalry was often obliged to dismount and walk for fear of ambushades, and also because the terrain was badly cut up. When the cavalry was in route column, it had to send out its scouts on foot. The result was that in a mountainous country this arm was deprived of its principal quality, speed; for it could march only two or three versts an hour. The information gained by the cavalry would be delivered late at its destination, and would often be of no value when the commanding officer would receive it. Furthermore, the power of modern musketry fire rendered the rôle of our cavalry very difficult.

Basing the tactics of their cavalry on the necessity of carefully husbanding their diminutive force for the service of security and information, the Japanese commanders usually supported their reconnoitering detachments with larger or smaller detachments of infantry and artillery, upon which the cavalry fell back if too hard pushed. On the other hand, the Japanese patrols appear to have made up in eternal vigilance and intelligent judgment what they lacked in numbers and in natural horsemanship.

Let us now put ourselves in the place of the commander of a small patrol of the cavalry screen advancing to obtain contact with the enemy, in rolling country with alternating woods and cultivated ground, *i. e.*, the average terrain to be met with in civilized countries. Advancing cautiously along a trail or road, the patrol hears the whistle of rifle bullets. No smoke is visible and the report is barely audible. The projectiles have the crackling sound which gives no idea of direction. The patrol hurriedly dismounts under cover and steals forward, rifle in hand, seeking closer contact with the hostile troops. If the patrol be not fired upon, the horses are brought up under cover, if possible, and the advance on horseback continued. If fired upon, the patrol advances as close as practicable, and observes. Probably it will discover that when first fired upon the enemy was 1800 yards distance, and that it will have great difficulty in approaching on foot nearer than half this distance.

The commander of a patrol cannot tell whether a platoon, a battalion or a regiment is in his front. He tries a flanking movement. Perhaps he meets a similar body of troops and discovers nothing more than on his first contact; perhaps he finds he can slip by, and obtains contact again, a mile or more in advance. But he finds that try as he will, he cannot discover the strength of the enemy in front; he can only tell *where the enemy is absent*, and thus uncover the general outline of the hostile curtain or screen.

Supposing that the reports of all these patrol commanders are promptly co-ordinated and forwarded to the commanding general; will they give him sufficient information on which to base a general engagement? Unless augmented by a well-organized spy system, it will in general be insufficient, if the enemy is provided with enough cavalry to meet our exploration service at every point.

The difficulties attending modern reconnaissance, which

I have attempted to briefly outline, more especially in a country devoid of good maps, has developed in recent wars a new tactical organization, to which no better name can be given than our simple and antiquated term "scouts."

In South Africa, these trained specialists in security and information were, for the most part, loyal Afrianders, although the Canadian and Australian contingents furnished their quota. With some knowledge of plainscraft and horsemanship, these men became invaluable for reconnaissance, trailing, night-riding and guiding.

The value of trained experts in this branch of military science produced such a profound impression on British military men, that Colonel Haig, one of the most experienced of British staff-officers, thus suggests an organization and training for future detachments of scouts:

1. Twelve non-commissioned officers and men per squadron of exceptional intelligence, courage, nerve and eye for country; good riders and good horse masters, to be trained under a specially chosen officer.

2. After six months' thorough training as scouts, fourteen (14) to be selected from the total number to be designated as regimental scouts. They must be of the highest standard of efficiency, and as able to work by day as by night.

3. Each scout to be provided with a telescope or binoculars, two horses per scout, short rifle and Colt's automatic revolver.

4. Squadron and regimental scouts to receive a higher rate of pay.

Colonel Rimington, one of the most successful British commanders of mounted troops, thus describes a successful organization of patrols for the intelligence service, which, although specially applicable to the South-African terrain, is worthy of notice:

After trying many methods of scouting, I found that the most satisfactory results were obtained by using scouting groups, of which I had fifteen; and each of which was usually composed as follows: One Afriander, who was often either a renegade prisoner or a voluntary surrender, with knowledge of the locality; two natives and three specially selected soldiers, one of the latter, perhaps, being a non-commissioned officer. Each group was under the leadership of one of the soldiers, and however badly off the rest of the column might be for horses, efforts were made to give every group an average of fifty per cent of spare horses.

A frequent method of the Boers in both reconnaissance and outpost was, after proceeding some distance in front of the main body to halt the greater part of the patrol in some strong position; then to send forward a dozen men who, in a similar

manner, detached to the front three or four of the best mounted of their number. If pursued, the advance parties fell back on the next in rear. The group in rear usually remained perfectly concealed, and received the pursuers with a volley at close quarters.

Although the idea of specially trained cavalry scouts was a development of faulty British training, of the difficult terrain and of the splendid scouting qualities of the Boer farmers, it is worthy of note that the idea was also developed in the Manchurian conflict.

The Russian cavalry in Manchuria was, for the most part, composed of Cossacks from the steppes. With a great and apparently undeserved reputation as scouts, it must be remembered that the hill country of Manchuria was unnatural to their mode of life. Throughout the war they showed great aversion for hill-climbing, and usually contented themselves with superficially patrolling the valleys. Time and again the Japanese outposts lay concealed in the hills, as the Cossack patrols passed by them below.

Colonel Schuyler tells us that although the Cossack officer accused the Japanese cavalry of timidity in their painstaking reconnaissance of the country in their front, the fact remains that the Japanese were almost always better informed than their opponents. But of course much of their success in this respect must be ascribed to spies.

The disappointing results of Cossack scouting led the Russian commanding general, in May, 1904, to create a body of mounted scouts consisting of two squadrons under a selected officer, who were especially charged with strategical explorations. Each squadron consisted of five officers and from 150 to 180 men, selected from among all the cavalry regiments for their audacity, intelligence and bravery. During battle these scouts were held at the disposition of the commanding general to obtain information of different events, and at the battle of the Sha-ho are said to have distinguished themselves. During the lull which almost always succeeded battles in Manchuria, these Russian scouts explored the flanks and rear of the Japanese outposts.

Likewise, in each Siberian regiment of three battalions, there appears to have been a specially organized mounted detachment of 142 selected men, called *okotniks* or volunteer

scouts, who were used in the services of security and information.

Assimilated to this idea of utilizing specially trained cavalry soldiers for these duties, was the Japanese practice of assigning one three-squadron regiment of cavalry to each regular division for employment as orderlies, despatch riders and for divisional scouting and outpost duty. This liberal allowance of trained scouts for divisional uses obviated drains upon the independent cavalry, an evil which has been the bane of all ambitious cavalry commanders for many years.

There will thus be observed in both of the recent great wars an increasing tendency to *specialize* the service of security and information, or exploration and protection; especially where normally trained or poorly trained cavalry fails to meet the arduous and difficult requirements of modern warfare.

Ordinarily, the information service will be called upon to tell the commanding general the extent of the position occupied by the enemy, the weak points in his line, the supposed key to the position, the best direction to be given to the attack and such characteristics of the terrain as will be favorable for the attackers. Patrol reconnaissance alone will, in general, give very little of this information in the face of an active, well-organized enemy, especially if the latter be strong in cavalry.

What then remains to be done? If practicable, the hostile screen must be pushed back forcibly at some point or points discovered by the preliminary reconnaissance, by cavalry strongly supported by artillery and machine guns. If infantry supports be used at all, care must be taken that their lack of mobility does not involve them in battle with superior numbers; and in any case, that a general engagement be not precipitated before the commanding general is fully prepared.

While the long breathing spells following the successive Japanese advances are usually attributed to a desire to perfect their *étape* system up to the new advanced lines, as well as to fully recover from the shock of the previous general engagement, it is extremely probable that much of this time was necessary to perfect their intelligence of the new dispositions of the Russians. With insufficient cavalry to reconnoiter the Russian positions, except as small patrols, the latter must very frequently have been brought to a sudden stop by strong bodies of the enemy's cavalry or infantry, screening the Russian main forces. The Russian screen could not be pushed back without

bringing on a general engagement, so that spies were the usual Japanese recourse.

Supposing, however, that the Japanese had had abundant cavalry, with little dependence to be placed on spies—as was more or less true of the Russian Army—an anonymous writer in the *Revue de Deux Mondes*, supposed to be General Negrier, commanding the French Army, thus describes the way he would force back the opposing screen, and uncover, if possible, the real dispositions of the enemy:

In the old tactics the (screening) columns were tied to their advance guards. These latter were given beforehand clearly defined and specific instructions as to their duties; it might be to attack, to take possession of important points favorable for the employment of the main body, or it might be to remain on the defensive. At present, all this is changed. The fighting units covering the columns should be entirely independent of the forces following them. The chief of each should maneuver according to the instructions which he may have received; but these instructions should leave him the largest possible opportunity for the exercise of his own initiative.

Contact being gained, the attack is delivered. Should one of the groups find nothing in its front, while the group on its right or left is engaged, the road is watched by a weak detachment, and a flank attack is delivered upon the hostile force which has checked or attacked the neighboring group. Thus, lending each other mutual support, ground is gained to the front, and the enemy is obliged to disclose his position. * * * * *

Each group should be composed in great part of cavalry, with a few guns and a small detachment of infantry. Cycle detachments may be advantageously employed in such service. No one officer should be in command of these groups, since by so doing their initiative will be interfered with, and their action weakened. They are intended to act freely upon wide fronts, and thus deceive the enemy as to their numbers.

This initial contact of the cavalry of two opposing armies may be likened to the meeting of two hostile fleets: As command of the sea will ensure the successful advance of the forces following the fleet, so will the crippling of the enemy's cavalry place him at a terrible disadvantage as regards his service of security and information.

Therefore, the commander who feels himself deficient in cavalry, will, like the Japanese, push his infantry supports well up to his cavalry, and avoid taking chances of loss.

INDEPENDENT CAVALRY.

Except as modified by present-day conditions in the theater of war, it cannot be said that the rôle of independent cavalry has greatly changed from that taught by the cavalry leaders

of the War of the Rebellion. At all events, neither of the two recent wars has developed anything new, except to accentuate what was already developed in our own great war. The importance given to mounted infantry and to dismounted fire action during the Boer War was a favorite method of cavalry fighting in 1863 and 1864; and in no subsequent war has the great independent operations of cavalry, known as raids, been approached in boldness of conception or in brilliancy of execution. To be sure, in the more recent wars, the Russians alone possessed sufficient cavalry to undertake independent cavalry operations, but as has already been stated, the results attained were disappointing and entirely negative.

Much was expected of the Russian cavalry in its independent rôle and it is possible that with better leaders it might have contributed some decisive results to the Russo-Japanese War.

A keen British observer of the war has remarked that if General French, with 10,000 British cavalry, had been given a free hand in the war on the Russian side, there would have been no necessity for Kuropatkin to retire from his strong position at Liaoyang; and that if the same able commander had been attached to the Japanese side at Liaoyang or at Mukden, there would have been no Russian Army in Manchuria to sue for terms of peace.

The lesson to be learned is but a reiteration of what we have already remarked: The leaders of cavalry must be specially qualified men, or results are *nil*, no matter what may be the numbers and training of the mass of personnel; and the latter must be both numerous and well trained. If numerous and not well trained, as were the Russians, the cavalry will be more or less of an incubus, to be rationed and foraged at the expense of the more valuable part of the army. If well trained but weak in numbers, as was the Japanese cavalry, not only will independent cavalry operations be out of the question, but a large part of the security service will be thrown on the infantry, while the information service will become greatly dependent on the use of spies.

DISMOUNTED ACTION.

We have already touched upon this subject in our discussion of the cavalry armament, but it is worthy of remark that what was apparent to the cavalry leaders of the Civil War, forty years ago, is only now becoming apparent in the cavalry

tactics of the great military powers of Europe. Despite the teachings of General Pelet-Narbonne, the Germans still seem loath to appreciate the lessons of recent wars; and in France, too, there is a powerful faction which still clings to the cuirass—an expedient which appears to us a relic of the Middle Ages.

The imprint of the experience of the Boer and Russo-Japanese wars is seen in very recent amendment of the Austrian cavalry regulations, which permits of dismounted fire action quite similar to our own regulations on the subject. But the lack of importance attributed to dismounted work by the Austrians is seen in the fact that the Austrian trooper is given ammunition allowance of but *fifty* rounds—twenty carried in his pouch and the remainder in his saddle-bags.

While the opinions of Lord Roberts and other general officers who saw service during the Boer War are entitled to the greatest consideration, his extreme opinions as to the almost universal use by cavalry of dismounted tactics must be received with a great deal of caution, as resulting from the abnormal terrain. The opinion of the British commander is rather modified by the published statements of his cavalry commander, General French, who, while acknowledging the necessity of much dismounted cavalry action in South Africa, calls attention to the fact that in a European war cavalry will be opposed by cavalry. "I am absolutely certain," says he "that if we are opposed by cavalry anything like as good as we think our own cavalry, the leader who gets down off his horses and begins firing (except with one or two squadrons which may be used on the same principle as horse-artillery), is lost."

HORSE-ARTILLERY AND MACHINE-GUNS.

The more present day tactics is studied, the more it seems certain that success is dependent upon a union of the three arms in such a manner that each will perform its function at the proper time. The tendency of present cavalry organization is to make that arm, because of the necessity of extreme mobility, self-sustaining in as great a degree as possible.

If infantry were as mobile as cavalry, it would, of course, be a desideratum to attach infantry regiments to cavalry divisions. Not being sufficiently mobile, the cavalry is armed and trained under present day ideas to do infantry duty when necessity arises. For the same reason, field-artillery not being altogether as mobile as cavalry, horse-artillery takes its place

in mobile cavalry operations. In addition, machine-gun batteries combining infantry fire with cavalry mobility are becoming more and more advantageous to independent operations.

Of the relations of artillery to cavalry operations little need be said, except that the wonderful power of modern artillery renders the addition of horse-batteries to cavalry organizations as necessary as is its presence with the infantry, perhaps more so.

The relation of artillery to cavalry is no new subject of study, so that we shall pass to that of machine-guns, whose action is still subject to controversy, although most recent reports from the Russo-Japanese War point to an almost universal recognition of their value. By machine-guns we mean guns discharging a mass of small-arms projectiles, and not small caliber artillery such as the pompom.

A Russian officer, commanding a machine-gun detachment, thus expresses himself in the *Ruskii Invalid*, after nine months' service at the theater of war: He believes in their special value to cavalry, in order to supplement the weakness of their dismounted fire-action and to replace it in part, thus leaving to the cavalry more initiative in reconnaissance. He states that the value of machine guns made such an impression on the cavalry, that several regiments purchased them with regimental funds.

He believes in but one way of carrying the gun; they must possess great mobility to accompany cavalry, and should be trained to use the trot for long distances. He believes in the gun-carriage on the march, and the tripod mount in action, without shields—the latter being dispensed with to minimize visibility. He states that while the machine-gun detachments may be attached to any of the arms, they should form separate units under their own commanders. They should never be employed as isolated guns, but with at least two against the same objective, so as to insure continuity of fire, in case of damage to one gun. Both the German and the French regulations lay down the same rule.

With the Japanese Army, Major Kuhn tells us that machine guns were first observed by him—after leaving Port Arthur—in connection with a review of Prince Kanin's cavalry brigade at Liaoyang. At the close of the war each of the two Japanese cavalry brigades was equipped with six machine guns. These

guns were organized into sections of two guns under an officer, so that sections could be attached to squadrons.

In the first cavalry brigade commanded by General Akiyama, 4000 rounds per gun per day was the greatest rate of fire attained. Major Kuhn remarks that machine guns are popular in the Japanese Army, and were highly spoken of by the officers. So far as the execution brought about by these guns is concerned, it may be mentioned that Captain Judson states that Russian officers told him, informally, that they suffered considerable loss from the Japanese machine-gun fire at the Battle of Sandiapu.

In this connection it is worthy of remark that in the German Kaiser Maneuvers of 1905 much of the success of the Blue Army was attributed to two machine-gun detachments, attached to the Blue Cavalry Division, which inflicted considerable losses on the left wing of the opposing infantry division. The machine guns are said to have proven their value more and more, and their assignment to every German army corps is now said to be only a matter of time. Their value to cavalry was specially demonstrated when horse-artillery was lacking, and over difficult ground.

CONCLUSIONS

In conclusion, we shall again state that while the abnormal conditions surrounding the cavalry operations during the Boer War have made deductions based *entirely* on that war somewhat hazardous, we may feel reasonably certain that new cavalry principles, which have been found *common to both wars*, may be accepted with a great deal of faith.

It is, therefore, most interesting to note the following latest published deductions of the Russian General Staff as to the use and training of their cavalry, based on the experiences of their war:

As to the cavalry, the Russians say that to practice in peace time what is useless in war, is absurd. The war has demonstrated—

1. The necessity of a first-class musketry instruction (carbine and revolver), not only for dismounted, but mounted individual action.

2. The necessity of furnishing each cavalry regiment with at least one machine-gun.

3. The importance of mobility; horses must be worked daily, no fat horses, harness and saddlery, equipment and arms of the rider must be lightened. The necessity of instruction in crossing all sorts of obstacles, including rivers.

4. The exercises of combined huge masses of cavalry must be given up; more time must be given to regimental instruction, which must be simplified. Little must be taught, but that well.

5. Special rules for reviews and marches-past to be abolished, and parade reviews held as seldom as possible.

6. All inspections to be given to seeing if the troops can maneuver, exercise initiative and shoot; can utilize cover, can combine shock and fire action, can effectively threaten the enemy's flank. More instruction in reconnaissance and in combined action with infantry and artillery is of vital importance.

So much for the Russian cavalry. While the Japanese military authorities are, as we know, most reticent in expressing opinions as to the lessons of the war, the *London Times* correspondent, who enjoyed unusual facilities for securing information, thus expresses himself as to the cavalry lessons to the Japanese:

The war has brought home to the Japanese the value of cavalry, and one of the very first reforms in their army will be the augmentation of the mounted branch of the service. * * *

The Japanese are an eminently practical people. From the weakness in their own cavalry, and from the consciousness that properly handled Russian cavalry could have played havoc with their dispositions in action and inaction, *they have learned the cavalry lesson*,* and they mean to profit by it. It is impossible to observe the events in the war, and to discuss the question with Japanese officers, and officers of many foreign armies, without being forced to the conclusion that the Japanese are sound in their interpretation of the cavalry lesson, that *genuine cavalry, and plenty of it*,*† is essential to an army.

To briefly recapitulate what recent wars have developed in the duties of cavalry preceding a general engagement, we shall state that to our mind they have demonstrated:

1. The necessity for a higher natural standard of *personnel* and a higher standard of *training* of both officers and men to meet the greater physical and intellectual *exactions* demanded of modern cavalry.

2. The necessity for a highly organized system of *expansion* to meet the demand for cavalry at the outbreak of war, and a system of *supply* to meet the increased *losses* in horseflesh due to more exhausting duties.

3. The importance of *minimizing the weight* carried by the cavalry horse to satisfy the *increased mobility* and *endurance* expected of him.

4. The greater *difficulties* confronting the cavalry in the *service of security and information*, as well as the greater field

* The italics are mine. C. D. R.

of opportunity in *strategical exploration*, more than balancing its contracted rôle on the field of battle.

5. The value of *dismounted fire-action* by cavalry, and therefore the necessity of an accurate and long-range firearm; but to encourage *independence of action*, so necessary to cavalry success, and to provide for occasions when cavalry shall meet *cavalry*; the desirability of supplementing the rifle with an auxiliary arm, such as a serviceable *saber* or *pistol*.

6. The necessity for adequate cavalry for *divisional duties* with infantry to save troops which are to bear the brunt of a general engagement from these duties.

7. The need of concentration of all the available cavalry that can be brought together, without impairing its other functions, into independent cavalry, because of the immense *independence of action* given to modern cavalry by arming it with a long-range rifle, and by giving it the aid of *horse-artillery* and *machine-gun batteries*.



Seaman Prize, 1905—Honorable Mention.

THE ENLISTED MAN'S CONTRACT WITH THE GOVERNMENT: THE MUTUAL OBLIGATION IT IMPOSES AND HOW ITS VIOLATION MAY BEST BE AVOIDED.

BY CAPTAIN EARL C. CARNAHAN, PAY DEPARTMENT,
UNITED STATES ARMY.



HERE is no subject of more vital interest to the service than this, nor one which, properly considered and solved, can have so deep and lasting an influence on its greater efficiency. In such a discussion thoroughness and frankness are a *sine qua non* to any real accomplishment—a broken leg cannot be cured with soothing syrup. Having a clear knowledge of the contract in all its bearings, and distinctly recognizing and frankly stating the many violations by both parties to it, it would not seem beyond the ability of men educated in and devoted to the service to provide, or at least to point out, proper remedy.

Thus, in considering the subject, we have to deal frankly and plainly, not only with the obligations and violations of the enlisted man, but also with those of the Government.

While the thousands of petty, minor infractions of discipline on the part of the enlisted man are, strictly speaking, violations of a part of the enlistment oath, yet the great majority of them, taken singly, do not rise to the dignity of a violation of contract, as generally understood. Such conduct frequently repeated of course finally renders a man practically worthless as a soldier and constitutes a serious violation of contract.

With the foregoing considered as a sort of preface, let us proceed to examine the contract itself, which is as follows:

STATE OF }
COUNTY OF } ss.:

I, born in in the
State of aged years and
months, and by occupation a¹..... do acknowledge to have
voluntarily enlisted (or re-enlisted) this day of
....., 190..., as a soldier in the Army of the United
States of America, for the period of three years, unless sooner dis-

charged by proper authority; and do also agree to accept from the United States such bounty, pay, rations and clothing as are or may be established by law. And I do solemnly swear (or affirm) that I will bear true faith and allegiance to the United States of America; that I will serve them honestly and faithfully against all their enemies whomsoever; and that I will obey the orders of the President of the United States, and the orders of the officers appointed over me, according to the Rules and Articles of War.

..... (SEAL.)
 Subscribed and duly sworn to before me this..... day of
, A. D., 190...

.....,
 Recruiting Officer.

This enlistment oath is the contract entered into by the man and the United States, but it is based, in all that concerns his qualifications, on the signed declaration of the man and his answers to various questions asked him. By means of these things he has demonstrated his eligibility to enter into the engagement.

These, then, as well as the physical examination record, are related to the actual contract in such a way that they are really part of it and should be so considered. For fraud in these things—in other words, for practice of deception to secure a contract which he otherwise could not have secured—the United States reserves the right to terminate the contract by discharging the man without honor and, in some cases, with no pay or allowances.

The obligations imposed by the enlistment contract upon both parties to it are of two kinds, express and implied.

A clearer view of the matter can be had by considering separately the obligations and violations of each principal. The obligations of each party must first be clearly set forth before violations can be recognized. Then, having recognized the violations, there will only remain the solving of the problem of "How its violation may best be avoided."

OBLIGATIONS OF THE ENLISTED MAN.

The enlisted man expressly agrees to serve the United States as a soldier for three years, unless sooner discharged by proper authority; to accept such bounty, pay, rations and clothing as are or may be established by law; to bear true faith and allegiance to the United States; to serve them honestly and faithfully against all their enemies and to obey the orders of the President of the United States, and the orders of the

officers appointed over him according to the Rules and Articles of War.

By implication it must be assumed that he also agrees to serve "honestly and faithfully" during peace as well as against enemies; that he has not practiced deception in any way to procure his entry into the service; and that he will cheerfully, promptly and fully comply not only with the letter of all proper orders, but also with their spirit—in other words, that he will, to the best of his ability, render proper service for value received.

VIOLATIONS BY THE ENLISTED MAN.

In any volunteer army such as ours the rate of violation, minor and major, will always be greater than in one made up by annual levy. This at first glance may seem paradoxical, but on closer view the reasons therefor will become apparent.

We cannot possibly hope to completely do away with violations as long as men are human and not mere automatons, for even though we should find and eliminate every cause that does not lie within the men themselves, or their private circumstances; if, in other words, every contributory fault of the service were removed, there would still remain a certain percentage of violations, great and small, induced by causes wholly beyond military remedy and, many times, largely beyond that of the men themselves who commit the acts. The best that can be hoped, therefore, is not the complete doing away with of all violation, but simply as great reduction as possible.

Broadly speaking, violations on the part of the enlisted man may be divided into two general classes, minor and major.

The many minor violations assume various forms of petty infractions of discipline, and may or may not be due to dissatisfaction with conditions of service. Such, for instance, are short, unauthorized absences from station, failure to attend stated roll-calls or duties, the great majority of cases of drunkenness, dirty arms or equipment, slouchiness, lack of cleanliness and neatness about bunk or quarters, failure to comply with various company or post regulations, some instances of disrespect, etc.

For the very great majority of violations of this class the men are undoubtedly wholly responsible, and the principal remedy to apply is the exclusion from the service of as many as possible of the weak, roving, vacillating, insubordinate or

vicious ones now sometimes carelessly enlisted. This, of course, must be principally accomplished at recruiting stations, but some assistance also can be expected from the recently established recruiting depots; for when such men make their appearance there they should be promptly discharged for the good of the service. Such action would be a real economy, not only in dollars and cents, but also in service efficiency.

As before stated, though, practically the whole of the task should be accomplished at recruiting stations.

In their desire to make or maintain records for the number of men enlisted, or in some cases at least, it is believed, from sheer carelessness or lack of special fitness for the duty, some recruiting officers do not go as thoroughly as they should into the records and qualifications of applicants for enlistment. Regulations require that only men of good habits and character be enlisted. More than the mere word of the applicant in the matter should be required by the recruiting officer before accepting him; yet, it is believed that the great majority of original enlistments are made with no further information on this most important of all qualifications.

The record of each applicant for the past year should be thoroughly gone into, and unless solid character in every respect and good staying qualities were clearly shown he should be rejected. It has been urged by some that, practically speaking, this is impossible; that the men will forge recommendations or produce false personal vouchers, and, finally, that such methods will not secure the required number of recruits.

The answer to the first two objections is that it *is* possible to properly investigate if *real, earnest* effort of the *right* kind is made, and to the last there can be but one practical reply—the deficiency of good recruits, even admitting such, will not work as great harm as a full supply of bad or indifferent ones. Further, an officer of sound judgment and a few years' service—a good judge of men—will not be absolutely dependent on written or personal testimonials presented to him, but will be able to make a very good gauge of most applicants independently. Therefore, only such officers should be detailed for recruiting service. Both those of such short experience in the service as to preclude a knowledge of its requirements, and also those who, having been removed from the active list for some length of time, are out of immediate touch and contact with it or, being on the active list, have such high rank or reached such an

age that they cannot descend to the detail and careful personal attention required in the case of each individual applicant, or acquired the notion that the service owes them a "soft snap" for two years, should be excluded from detail. No retired officer whose disability is of such a nature as to interfere with his active and constant performance of all the duties of the detail nor, except in time of war, one who is more than fifty years of age or has been retired longer than three years should be detailed for recruiting service. Not that the good of the service is not just as dear to these men as to those on the active list, but simply from all the conditions they cannot do the duty as it should be done.

It is quite as important to secure good material for the construction of a good house as to employ skilled workmen to put it together. The best of workmen cannot erect a first-class structure with second-class means; therefore it is just as necessary to enlist the proper kind of men as to give them the proper kind of training. If we are to eliminate many of the undesirables now enlisted, the recruiting service must be vigorously reformed; not simply *talked* to through orders, but *acted* on, generally and specifically.

No matter, though, how thoroughly the recruiting service be reformed, impossibilities cannot be expected or accomplished. In the line of men, as with other commodities, market value is the rule, and we cannot expect to get very many men for less than they can obtain in civil life. If we want men of a certain quality, we must pay the price.

To get a larger percentage of first-class men than present inducements are capable of producing, we must offer more money. A cheap price will not, on the average, buy first-class goods. Bargains cannot be counted on as a steady thing, and even some that we do get are a little shop-worn. The rights of the matter cannot be better stated than by the Paymaster-General of the army in his last report where he says: "That the army is underpaid, especially in the case of the enlisted men, is too well known to require demonstration. It may be a fact that the American soldier is better paid, better fed and better clothed than are soldiers of other countries; but this is a fallacious argument and unworthy of a place in any discussion of the subject, because it is equally a fact that before he joined the colors he was better paid, better clad and better housed than the class of citizens of foreign countries from

which the recruits for their armies are drawn. The true basis of comparison should be with the condition of his compeers in civil life. Is he as well-paid considering the duties he has to perform, and is he as well-off at the end of his enlistment as he would have been had he not entered the military service? The complicated machinery of the modern armament requires thinking, educated men—a class to whom the present rate of pay offers but slight inducement to enter the service in times of prosperity.”

Considering the duties imposed upon them and the qualities of mind, heart and character that we have a right to expect of them, our non-commissioned officers with some few exceptions, are woefully underpaid. The non-commissioned officers may well be called the nerves and muscles of the army body. They are controlled by the brain (officers) and cause the body to do its bidding. No animal body, however highly trained the brain, fitted with underfed, poorly nourished or organically weak nerves and muscles, can perfectly accomplish its functions.

Non-commissioned officers are the ones who daily and hourly come into personal contact with the men and through whom discipline is directly applied and maintained. All good officers know their supreme importance, and therefore to dwell upon it here in detail would consume word allowance otherwise needed.

In this practical period we generally get what we pay for and no more. Therefore, if we seriously hope to materially improve our non-commissioned *personnel* we must offer adequate compensation. The recommendation of proper amounts for the various grades has no place here, but it is felt that non-commissioned officers of the line should receive primary consideration.

So, also, certain privates should receive more than others. To accomplish this, privates of infantry, cavalry and artillery should be divided into two classes, privates and first-class privates; the latter of whom should receive the pay now given corporals. Such a division would not only offer additional incentive to the young soldier to do his best, but in many ways would be a powerful measure for good in the hands of the captain. It has been found valuable in certain staff corps, why not give it to the line? In the stress and strain of combat is the man behind the gun of less importance than his comrade who is not? If so, then the hand is of more consequence than

the body which it attends; if not, give him advantage of an organization that has been found to work so well with others. Lack of space forbids enumeration of the many reasons in favor of this classification, but every company commander of much experience or other officer of long service will readily recognize its value.

Substantial justice to both the service and the men in the matter of pay could be done for approximately \$1,500,000 more per year than now. Considering the great increase of service efficiency that would result, and its far-reaching influence for the good of the service in a hundred ways, the sum seems ridiculously small. No greater benefit could be conferred on the service by any single measure of relief.

Not only should the men be better paid, but more frequently. Payment should be made at least twice a month, but preferably three times, to all large commands in the United States and also to smaller ones with good communications. This would involve some extra work by some officers, and the devising of a simple but accurate system of record, account and payment. American officers have never shirked work, and it is believed that a competent board of officers of the line and Pay Department could soon perfect a proper scheme. Next to better pay, the writer believes that more frequent payment would do more than any other single measure to bring about more contentment among the men and lower the rate of violation.

Men, such as soldiers ordinarily are, paid at long intervals and without family ties or other sense of direct personal responsibility, except to themselves, and with their employment fairly secure, are more apt to spend their money as quickly as possible in vicious pleasure or riotous living and get into periodical trouble than if paid at shorter intervals. The money quickly spent, there follows a period of either famine or borrowing or selling clothing or something worse. Discontent is the hand-maid of all these things and violation is the frequent companion of discontent.

If the men are paid more frequently they will always have a little money of their own and be more on a level with men of their average class in civil life who are paid more frequently and usually have a little money at all times. Then if he wishes to take his sweetheart to a dance, the theater or for a car ride, or for any other purpose needs a little change, the soldier will

not have to borrow at ruinous rates, or be tempted to sell his clothing. The man with money in his pocket, be the amount ever so small, has a greater sense of responsibility, feels more of a free agent and has a better opinion of himself than one who habitually has none.

Some may think this would result in three derangements of garrison peace and routine each month instead of one as now, but it is believed quite the contrary would be the case. With more familiarity with money would come more prudence in its use.

The further advantage would be gained of not placing in the hands of certain classes of men sufficient money at one time to buy a long enough railroad ride to enable them to desert. Thus violations of this class would be reduced; for certain it is that some men desert simply because they have enough to buy a fairly long ride and have a few dollars left at its end.

This done, the law should be changed to permit the deposit of sums of less than five dollars.

It is urged that the idea be put on trial at three or four large posts near department headquarters where there is no probability of change of garrison for one year. Such a test would determine whether or not the proposition has any real value.

Liquor is probably responsible for at least one-half the violations for which the men are wholly to blame.

For this there are two cardinal remedies: Reform in recruiting, as before referred to, and beer and light wines in the post exchange. These cannot do away with all violations due to liquor, but would reduce them very materially. The evils and disadvantages that followed the abolition of the liquor feature of the post exchange, as well as the reasons why it should be restored, have been repeatedly set forth by abler pens than mine, but still a short résumé of the matter would seem to be proper here.

Practically the entire service, both commissioned and enlisted, is not only in favor of the restoration, but ardently demands it. Commanding officers of all grades have repeatedly stated that violations of all kinds, but particularly those due to liquor, have most materially increased since the abolition of the sale of liquor in the exchange; and that discipline is not only more difficult to maintain, but is not as good as before. Officers of all grades, as well as the men themselves, have urged for years that the old exchange was more of a

source of content and comfort than the present one, and if this be true, as it unquestionably is, then it follows, as day the night, that its presence was a good thing and its absence is a bad one. Profits which formerly went into the stomachs of the men in the shape of more and better food, or into books, pool and billiard tables, curtains for barrack windows, and the many little odds and ends about the quarters that made them more attractive, homelike and comfortable now go into the pockets of proprietors of the vile rum shops and vicious dives that fringe every post and have constantly increased in number since exchanges have sold no beer.

Soldiers are not saints, either real or in disguise, but only plain, ordinary human beings, and as long as human nature is what it is, more or less of them will drink liquor. Being unable to get it at home, they go where they can. Instead of the pure light beer which was formerly sold them in the exchange, and only in reasonable quantities, they get all sorts of vile concoctions on the outside and are urged to take, not a reasonable quantity, but all they can hold or pay for. The result is that many times they drink more than they intended to; get into disgraceful fights and brawls or otherwise bring discredit on the uniform when nothing had originally been further from their intention; being so far from the quarters, miss one duty and then others, thus multiplying a slight violation into a grave one; and, finally, in some cases actually desert when otherwise they would not have.

The good but short-sighted people who brought all this about urged that as a matter of principle the Government should not sell beer, and that by so doing many young soldiers were led to take their first drink or, from easy opportunity, became habitual drinkers. It may be that some few men have taken their first drink in an exchange; but it is fully believed that these same men would have taken this first drink just the same in the absence of the exchange, but in a much worse place, for all posts are more heavily fringed with low grogeries and dives now than when the exchange sold beer, hence the opportunity is greater than before. It is agreed that beer selling is a bad thing in principle; but the beer feature of the exchange was simply the lesser of two evils, therefore it was not so hurtful as the greater with which we now have to contend.

Dive-keepers fought the service and are still fighting us on the issue, and so did and are certain misguided but respectable

people. Thus we see two widely antagonistic elements united in common cause, but for very different purposes. The one has hoodwinked the other to assist it in a fight for its pocket-book, while the other imagines it is contending for a real benefit.

Verily, the lion and the lamb have lain down together.

But even with the best class of men possible, short of real angels, there would be a certain remaining percentage of minor violations, and inasmuch as it is neither possible nor desirable to enlist real angels, we must search elsewhere than the recruiting service for their causes. A certain portion of this "remaining percentage" of minor violations would still be committed if both men and service conditions were as nearly perfect as possible simply because the machine known as the service is composed of human elements.

There remains, then, a certain portion of minor violations with only the Government to father them, for those with other paternity have been eliminated. While two wrongs do not make a right, and there can be no justification for violation of his plain duty by the enlisted man, yet vexatious or unreasonable requirement; impatient, insulting or brutal treatment; indifferent or neglectful conduct of those in authority over him; severe punishment where milder would have answered as well or better; manifestly poorer food or inferior arrangement in various matters of interior economy in some companies than in others; the imposition of duties clearly not within the terms of the contract, such, for instance, as cleaning windows, beating rugs, scrubbing floors and other things of menial nature for officers—"striker" service—except by agreement and payment; excessive fatigue, particularly with pick and shovel, when other labor could be obtained or the necessities of the service do not render his employment in that capacity necessary; and other infringements, if not positive violations, of the terms of the contract by the Government, all go a long way toward explaining why in his disgust and resentment the soldier is sometimes derelict in his duty. That the enlisted man has at one time or another some or all of the above grievances to contend with, and sometimes others also, is undeniable. The mere naming of them should suggest to the proper persons the proper method of their abolition.

Another fruitful source of discontent and soldier "growling" is the extra and special-duty system. The proper remedy

is its abolishment and the substitution of a service corps of clerks, artisans, mechanics and skilled laborers. All extra and some special duty men receive extra pay and are wholly exempt in some cases, and partially in others, from guard duty, drills, parades, other functions under arms, kitchen police, fatigue details of all kinds and many other disagreeable duties. Their absence from these duties causes other men to be detailed more frequently and makes them feel that they are doing not only their own unpleasant duty, but also that of others who not only avoid it, but are actually paid for doing so many times. In nine cases out of ten these extra and special-duty men would prefer their jobs even without extra pay to straight soldiering, which many times involves more hard, disagreeable work for more hours per day. There is a very general feeling among the other men that these selected ones are in a special class which enjoys more privileges and is subject to much less of the drudgery of the service than they.

Possibly violations are not committed in direct consequence, but nevertheless the system constitutes a link in the chain of dissatisfaction that drags some men into doing things they would not do if they were more perfectly satisfied. The duties performed by extra and special-duty men are absolutely necessary, but the Government should find some way of having them done without prejudice to those not on the favored list. A special service corps is the means by which this can best be accomplished.

That there is local cause for violation is plain from the fact that in any garrison of several organizations it is nearly always the case that certain companies have more violations than others, and that this is practically continuous. Such companies have no *esprit* and their commanders either do not know how to create such a thing or do not care. The men in them are utterly indifferent to the fact that other companies drill or shoot better, that their quarters are cleaner and better kept, that all the orderlies are selected from other companies, that their own companies are not regarded as among the best, etc. In short, they have no company pride. This is not their fault, but that of their officers.

The company commander should have a high sense of duty, a fine practical sense of justice and an abounding faculty for hard work. He should be a good judge of men and have great capacity for detail; for in managing a company it is the balance

secured by well-ordered detail rather than the fine front obtained by pompous generality that makes the machine run with a minimum of friction.

The captain should give his personal attention to every detail of interior economy in a proper way—to the thousand and one little things that men have to contend with daily and that go to make life smooth or rough; he should make his company's interest his interest; he should be particularly careful in his selection, training and supervision of non-commissioned officers, permitting vacancies to exist indefinitely rather than fill them with indifferent men simply to have them filled or to give the men the increased pay. In order that he may know when to punish severely or mildly, as the case may be, admonish, counsel or advise, he should study the character of each of his men, for they each have an individuality and cannot all be handled alike. His sense of justice and fairness should be absolute, but at the same time his bearing toward his men should be such that they could at all times rely on his intelligent sympathy, both in fair weather and foul, and feel that they could go to him, not always as to an inexorable judge, but rather as to a just father; his men should know that every act of theirs, individual or collective, was near to his heart; he should promote a feeling of company pride by showing his own pride and interest; he should actively encourage and promote athletic, literary and social organizations within the company; he should put a stop to money lending and borrowing in the company and actively encourage his men to deposit and he should personally see to it that the barrack is as attractive, comfortable and homelike as possible.

In just the degree that the captain possesses these qualities and does these and other things along the same line will he have a well-balanced and properly run company and one in which the rate of contentment is high. It is axiomatic to say that a high rate of contentment is accompanied by a low rate of violation.

Along this line, some remarks of the Chief of Staff in his report for 1904 can be quoted with profit. He says: "Character, habits, aptitude, differ widely among men on entering the army, and it is the skill of the experienced officer, with his intelligent sympathy, his counsel and admonition, rather than rigid mechanical enforcement of the Articles of War for minor faults, that best harmonizes these varying elements and secures

contentment of young soldiers in companies and the service.' Strive as they will, however, or perfect their organizations as they may, captains cannot always get the desired results, for over them are post commanders whose regulations must be obeyed. If these regulations and the general conduct of the post are such that sometimes even captains use every endeavor to get away because of dissatisfaction, what must be the state of mind of the men?

Every department commander can testify to marked difference of capacity among his post commanders. Here and there one can be found who runs his post in a slipshod, slouchy, happy-go-lucky fashion (or permits someone else to do it for him), or, on the other hand, uses no practical sense in his arrangement of duties or seems to act on the theory that the highest duty of a commanding officer is to be a nagging martinet. The result in each case is the same—inefficiency and a high rate of violations of all kinds.

The prompt and proper use of inspectors, retiring boards, courts-martial and the President's prerogative is the remedy for such.

A serious cause of discontent and consequent violation is the absence of entirely too many captains from their companies. Some regiments have five or more captains absent on details of from one to four years with others away for shorter periods, thus bringing the total up to six or eight. In the vast majority of cases companies commanded by their captains are better commanded than others. The men are better cared for, they are better handled and the organizations are in better shape in every way. The captain has a permanent interest and pride in his company and handles it accordingly. His greater experience and better judgment of men enable him to get better results with less friction than a younger man or one with less rank. The writer has known "orphan" companies to have as many as eight or ten different commanders, none of them their captains, within a year. Such companies soon come to be known as "mobs," discipline and efficiency promptly disappear and violations, both minor and major, rapidly increase.

Get more captains back to their companies and keep them there. Those in authority can do it if they only will.

Probably a good and sufficient reason can be given for each case of long or semipermanent absence; but on the other hand, when they are considered in the aggregate and the resulting

harm to the service taken into account, still stronger reasons will appear why the great majority of such captains should be back with their companies. Thus far only minor violations have been dealt with. While they are of vital importance from any point of view, still it is the major violations that constitute the more serious breaches of contract by the enlisted man, and of these desertion is by far the most serious and the one of gravest concern. Major violations assume various forms for which, generally speaking, sentences of three months or greater and forfeiture of all or partial pay may be given by law. What has been said heretofore relative to cause, explanation and preventive in the matter of minor violations has also direct application to and bearing on those of greater degree. But in addition, the question of desertion is very much more complicated and merits special consideration. It goes without saying that nearly all deserters leave the service because they are not satisfied to remain in it; but the writer feels certain that some few cases have come under his observation where this was not the case.

This dissatisfaction may or may not be due principally to inherent defects of the men concerned.

Broadly speaking, the causes of desertion may be grouped into two general classes; those without the service and those within the service. Not infrequently, though, the act is committed as a result of a combination of causes of both classes.

Before such a long standing, chronic disease can be properly treated a thorough examination of its causes must be made and the result frankly stated. If, perchance, we find that our trouble has been acquired in any degree "not in line of duty," and that we are still addicted to the same line of unhealthy practice, let us frankly acknowledge it and mend our ways, however much it may shame us, or to whatever extent we may have to change some of our habits. Many of the "causes within the service" that exercise a contributory influence have already been considered, and others will be considered later under their proper headings. Let us therefore take up the consideration of those "causes without the service" that have bearing on the subject. That public sentiment does not sufficiently condemn deserters is a well-known fact. The public at large does not seem to view desertion as a serious crime, but rather as a mere breach of contract and as of no particular concern to anyone but the parties to the contract. The army is a small affair and, except

in time of war, of very little immediate interest to the great mass of the people; therefore, the doings of component parts of it, great or small, pass with small notice from them. They have heard in a vague sort of a way of "military methods," "snobbish army officers," etc., and they regard a deserter as one who, while he may have committed a wrongful act, was more or less forced into it by harsh and brutal treatment and has simply done as they would have under similarly intolerable conditions of employment—quit the job without notice. Therefore, there is no general disposition to regard the deserter as a criminal, but rather as one who has suffered and had to resort to strenuous means to release himself. That is, this is generally the view taken where there is any "view" at all. Owing to this attitude on the part of those who take any interest at all, and to the general lack of interest and pride in the army by the remainder of the public, it is believed that there is a general feeling of indifference to the fact that a man is a deserter when such fact becomes known. The one class will not cause his arrest because they think he was abused, and the other because they do not regard it as of sufficient importance to occupy their time or attention. The only remedy for this state of affairs lies in arousing the general public to the serious nature of the offense. This cannot be done until a more general sentiment of affection for, and interest in, the army is created in the people themselves. The Chief of Staff says, in his report for 1904: "Deserters from the military service return to civil life and there seek employment and the exercise of civil rights and functions accorded to others, and it is rare that they do not disclose having had connection with the military service. If all States and Territories should by law withhold from deserters exercise of the right to vote at national, State and municipal elections, unless the act of desertion be atoned for by lawful discharge, subsequently earned by service, it seems probable that the most healthful remedy practicable would be applied to the evil, and that the result would be surprisingly great. The majority of deserters would return to the colors at their own expense and serve out their unexpired enlistment contracts in order to receive a lawful discharge which would re-establish their civil status. If such laws were enacted by the States and Territories the very serious penalty to follow desertion from the service would be known to the man upon enlistment. This knowledge would operate to steady many men

who think of consequences, chances of escape and detection in after years. It would deter large numbers from commission of the act."

Some action along the lines suggested should be taken. As a further measure, however, and one that could be taken by the military without help from others, the following is offered: In the case of each deserter not immediately apprehended publish in at least three issues of at least one of his home papers the fact of his desertion and the amount of the authorized reward for his apprehension. This would not only arouse interest from time to time and render apprehension more likely, thus acting as a deterrent, but might restrain many a man from commission of the act because of a desire to avoid the publication of his shameful deed among his friends and relatives. Further, it would cause families and friends to exert all their influence to induce men not to desert, but to remain in service until exit could be honorably secured through one of the various channels provided by law.

This would cost a few thousand dollars annually; but from year to year as desertions decreased under its influence the cost would be constantly less, until a comparatively small minimum would be reached. A deserter is an expensive luxury to the United States, and it is believed that if this scheme resulted in even only a very small decrease in the present rate it would be a real economy. When public interest in and regard for the army reaches that point where the deserter will no longer be practically harbored, but regarded and treated as any other known criminal, it will be evidence also that citizens generally have ceased to regard the man in uniform as possibly a necessary national asset, but an altogether undesirable one except in time of war. As a body, our enlisted men all have at least a common school education, while many of them have still more; as a class they are honest, intelligent, upright and self-respecting, yet the general disposition is to regard them as quite the contrary and inferior beings whose social touch contaminates in greater or lesser degree. Men in uniform are looked at askance, and they know it. Heads of families do not welcome them as visitors into their houses, and young women of the best characters do not generally care to appear in public places with them in uniform. All this makes the self-respecting soldier feel that he has lost something dear to him by service in the army, and consequently not only lessens any love he

may have for it, but in many cases is an almost overpowering element of discontent and disgust.

It may be said that water seeks its level; that in this country, at least, men will naturally arrive at their proper social status, etc.; but such trite sayings are not strictly applicable in this case. The great body of good men have to suffer for the deeds of the very small minority. A man in uniform is conspicuous and is marked wherever he goes or whatever he does. He may be seen drunk on the street, mixed up in a row, or doing some other objectionable thing, and the memory of it remains a long time with every witness simply because of the uniform. Thereafter, the sight of another uniform will almost invariably recall the incident to the discredit of both the uniform and the man who wears it. The same witness may have seen civilians associated with the soldier at the time, but their presence is soon forgotten—the uniform made an abiding impression that will always thereafter, unconsciously perhaps, be more or less associated with wearers of it in general.

Things are not demanded for the enlisted man to which he is not entitled on his own merits, nor which he does not want. Admission for him into the ranks of the "400" is not asked, nor the glad hand indiscriminately as he passes down the street; but his profession is an honorable one, and certainly as long as he takes an honorable part in it he is entitled to that decent and kindly attitude accorded by the public to other honorable men of other honorable callings. The fact that this is not always the attitude of the public toward him, and the knowledge that, while not regarded exactly as a social outcast, his social status is not, in the majority of cases, as good as before entering the service, even among his former friends and acquaintances, does not add comfort to a life hard enough at best or tend to create and maintain that pride in his uniform and calling which every soldier should have and the possession or lack of which must certainly influence the action of many a man in remaining in or leaving the service.

A certain percentage of roving, weak, insubordinate, impossible-to-satisfy characters creep into the service, and the elimination of all causes after enlistment not inherent in these men themselves would not reduce the number of desertions due to these defects of character. There are men who could not possibly remain in any situation or at any given place for

three years. They are so constituted that they must have change. They had it constantly in civil life, as an examination of their records there would show, and they do not find military life sufficiently attractive to change the habit of years. Hence they desert. Some times they transfer from one company, regiment, corps or post to another a few times before deserting, but this is usually only a prelude. The remedy for this phase of the disease lies in the recruiting office and has already been discussed. Some are so naturally and by habit weak, badly balanced and insubordinate that they will not submit to proper restraint, discipline or guidance of any kind. Each admonition is an affront, every warning an insult, while an actual punishment, however slight, is something not to be tolerated at all. In civil life such things were answered at once by quitting the job, and they see no good reason why the same reply should not be made to the military.

The writer has known of men enticed from the service by others who had deserted and then wrote back of good jobs to be had. In fact, such a case occurred in the company commanded by him only a few months ago.

Some enlist simply for the opportunity of making a first heavy drawing of clothing which is then sold, the men immediately deserting, and soon again going through the same process in some other locality.

Others enlist in organizations under orders to change station to some point where they wish to go, and on arrival desert. Two such cases occurred in the writer's company a few years ago, just prior to its sailing for the Philippines.

The proper remedies in all these cases have been pointed out. Homesickness and letters from friends and relatives are responsible for many cases. Possibly a young recruit after only a short service cannot resist the desire to see the home folks again, and accordingly goes home, it may be with authority or possibly without, and remains longer than he intended, is afraid to return, and ends by deserting.

Many times and for various reasons married men enlist as single and afterward desert because of their families.

Young fellows disappointed in love or business, or for any one of a hundred reasons, sometimes seek the service as a sort of oblivion, and later, affairs on the outside assuming a brighter aspect, leave it by the only ready, easy and quick avenue that presents itself—desertion.

These are only a few illustrations of the numerous causes outside the service, or that have their origin there, that induce desertions, but are sufficient to demonstrate the fact that many of them are beyond the reach of any cure-all that may be in the military medical chest. In all of these cases the men either will not or cannot avail themselves of any of the legitimate means provided by law for exit from the service, and the result is desertion, for which the military authorities are in no way responsible except in so far as proper care, which would have prevented by far the great majority of the enlistments, was not exercised at recruiting stations.

It might be suggested that if more or easier means of honorable exit were provided, or the term of enlistment reduced to two years, desertions would be materially reduced, and the writer has no doubt of the truth of either proposition. But to provide more or easier means of exit than now exist prior to expiration of the enlistment period would practically amount to an option to leave the service at will and would not be advisable either as a matter of economy or service efficiency. To reduce the period of enlistment would not, for the same reasons, but more particularly on the score of efficiency, be wise.

Finally, punishment for desertion should be more severe. The present system of confining convicted deserters in post guard-houses should be discontinued, a central prison re-established and the minimum punishment fixed at three years.

In discussing violations by the enlisted man it has been necessarily impossible to avoid more or less reference to certain sins of both omission and commission by the Government or its agents. Violations by the Government not already thus referred to will be discussed after first summing up its obligations.

OBLIGATIONS OF THE GOVERNMENT.

The Government expressly agrees to accept the services of the man as a soldier; not to hold him longer than three years; to give him the compensation established by law and to govern him according to the provisions of laws enacted by Congress.

The man has a right to assume that "the nature of the service" was fairly explained to him before enlistment (see par. 863, A. R.), and that a great government, through its agent, has not negatively deceived him into making a contract

which he might otherwise not have made; that the Government is responsible for the acts of its agents; that the manner and bearing of all Government agents (officers and others in authority) in their dealings with him shall be governed by the ordinary rules of fairness, courtesy and common decency and in accordance with the provisions of pars. 2 and 3 A. R.; that for distinct violations by either party of either the express terms or the fairly implied ones of the contract the other has proper and usual recourse; and that the duties that will be required of him will only be those properly assignable to a soldier, the necessities of the service being considered.

The express obligations of the Government are so few and clean-cut, that no discussion of them beyond their mere mention is necessary.

VIOLATIONS BY THE GOVERNMENT.

As violations by the enlisted man have been frankly dealt with, a spade being called a spade, so indeed must those by the Government be treated, else the discussion be fruitless. Before discussing them, however, lest a wrong deduction be drawn from what follows, the writer feels impelled to reiterate the opinion gained from more than twenty-two years' service as enlisted man and line officer, together with some staff service in various capacities, that for the majority of violations, minor and major, by the enlisted man he, and he alone (ignoring errors in the recruiting office and considering only the fact that he has been admitted to the service), is responsible.

Does the agent of the Government (the recruiting officer) always *fairly* explain "the nature of the service" to applicants, that is, describe the things they will be called upon to do? By this is not meant to ask is explanation made of the thousand petty details of service, for such would be practically impossible, but of those larger features that directly interest them and that would ordinarily affect the action of any sensible man in considering a contract. Does he tell them that at times they may do quite as much soldiering with pick and shovel (in the line of fatigue duty) as with a gun; that they may be, and, in fact, frequently will be, called upon to do certain things for officers that are menial in character and degrading to persons not accustomed to doing them? Does he tell them of the guard-house and explain the system of fines and punishment? Does he tell them that although

the clothing allowance is more than ample, yet the issue system is such that many of them will have to pay from a few cents to a good many dollars for clothing, thus in effect being deprived, without fault on their part and without necessity, of the pay promised? Does he fully explain and discuss the solemnity of the oath of enlistment, tell them of the quality of obedience required, and point out the fact that desertion is a serious crime and not a mere breach of contract?

Does he always do these and other things along the same line? No. His failure to do so is a violation by the Government and constitutes it an accessory before the fact to every violation by the enlisted man the commission of which was influenced in any degree by any of these things which he had a right to know, but did not, before entering into the contract. The practice of any of these things on men after entry into the service is a still further and positive violation and the best way to avoid them is simply to avoid them. Stop them, and there will be no necessity for their explanation in the recruiting office; but in the mean time, as long as they exist, require recruiting officers to explain them. See to it that recruiting officers comply with that provision of par. 863 A. R. which says: "Recruiting officers will not allow any man to be enticed into the service by false representations." The failure to *fully* represent is a false representation in the sense of this paragraph.

In their dealings with the enlisted man the great body of both officers and non-commissioned officers are undoubtedly governed by the "ordinary rules of fairness, courtesy and common decency;" but here and there one is to be found who is not so governed. Fortunately these are very, very few, but their leaven of evil effect is out of all proportion to their number. Men should not be coddled, nor is it expected that those in authority shall practically say "please" in their requirements, for such things are subversive of discipline; but there is a middle line between them and wanton humiliation, brutal reproof or sneering indifference that should be followed at all times. Language and manner are sometimes employed toward enlisted men that would never dare be used in dealing with official equals. The writer well remembers one such officer in the large garrison where he served some years ago as an enlisted man against whom practically all the soldiers harbored resentment, either from personal humiliations suffered at his

hands or as the result of those inflicted upon their comrades. They would walk a long distance out of their way if possible to avoid saluting him. Such a man cannot enforce discipline in its best sense. Violations, minor and major, by the men were more frequent in the organization of which he was a member than in any other in the garrison. These are bald, ugly statements, but every officer of much service knows that there are a few officers of the kind described.

The 30th Article of War provides a method of redress for the soldier who thinks himself wronged by an officer, but who ever knew of its provisions being enforced? In some few cases where abuse was flagrant officers have been severely punished, but as against these there is a daily multitude of petty nagging, irritating ones just as hurtful to the pride and self-respect of the men and for which they have no practical recourse. Very few men care to constantly complain to the commanding officer, but nurse their grievances instead and resent them in the only easy, ready way at hand—some form of violation. Even were complaint made in every case and redress had, yet the sting would not be entirely removed.

The chief remedy is the cultivation of a higher ideal of duty and finer sense of justice toward, and consideration of, others among the few offenders. A powerful stimulus toward such cultivation would be the general knowledge among all concerned that beyond the question of a doubt proper superiors would promptly and thoroughly investigate all complaints and as promptly and thoroughly mete out exact justice.

In the matter of recourse for violation the advantage is all with the Government. Quick and positive action can be had against the man if present, but he cannot always get as satisfactory results, and knowing this, many times makes no effort, but takes such ready action, even if unwise and unjust, as suggests itself to his resentment. That the Government at times has little regard for the terms of the contract, except in so far as it binds the enlisted man, has very recently been pointedly illustrated. A few months ago General Orders announced that the First Regiment of Infantry would sail for the Philippines in January, 1906. The Government did not wish to send any men abroad with less than a certain period to serve at date of sailing and made a proposition that it would discharge from their existing contracts such of them as wished such service and would agree to make another three year contract with it

the day following discharge. A great many men accepted this clear-cut proposition, thus contracting for a total of more than three years' service, part of which was to be in a particular place; whereas, without said voluntary proposition by the Government many of them would not have contracted for more than three years' service.

After the men thus fulfilled their part of the bargain so far as they could, the Government calmly broke its inducing promise by revoking the order for the regiment to go to the Philippines and ordering another instead, and this not as a matter of necessity, so far as known, but for some other reason.

The essence of the illustration lies, not so much in the exposition of injustice done, which is bad enough of itself, but rather in the manner of its doing. It forcibly illustrates the sometimes calmly arbitrary disregard of the Government not only for the reasonable and proper convenience of the enlisted man, but also for his actual rights. Whether or not unjustifiable injury resulted from the act of the Government is not the point; the fact remains that the Government seems to reserve to itself the privilege of arbitrarily disregarding its contract obligations.*

It certainly concedes no such privilege to the enlisted man. It is not intimated for a moment that in the ordinary case the Government should consult the men as to the orders to be given them, but, having consulted them and secured their performance of certain things upon a promise to itself do a certain thing, it should carry out the agreement in the absence of a compelling necessity to do otherwise. The Government does not always by its acts seem to concede the application of contract law to itself in its agreement—the enlistment oath—with the enlisted man, but at the same time exacts its very letter from him when it chooses. The result needs describing to no man with a knowledge of men.

CONCLUSION.

The chief obligation of both parties to the contract is to deal fairly by each other.

The enlisted man is wholly responsible for the majority of his violations.

*This was written prior to the publication of the second order directing the regiment to proceed to the islands. The issuance of this latter order, however, in no wise affects the point illustrated.—AUTHOR.

The Government is partially responsible for some of them. The attitude of the public influences others.

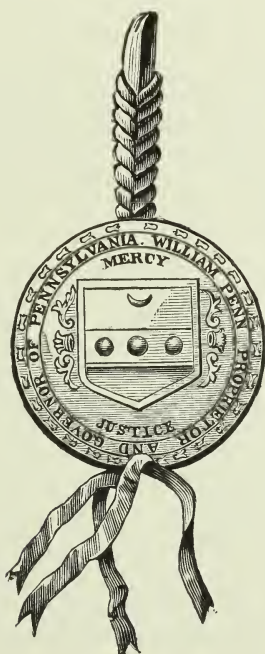
There would be a certain amount of violation if both men and Government were as nearly perfect as is humanly possible.

The Government is wholly responsible for all its violations.

Proper remedies for Government violation are clear and lie within itself.

Violations by the enlisted man will be materially reduced, and in corresponding degree, when violation by the Government is reduced, the recruiting service reformed, better pay offered and more frequently, the average quality of the men raised, a service corps is provided, the beer feature of the exchange is restored, captains approximate the ideal as nearly as possible and absent ones return to their companies and the present attitude of the public toward the soldier in general, and the deserter in particular, is changed to a proper one.

X. Y. Z.





SWISS GENERAL AND STAFF.

THE SWISS MILITARY ORGANIZATION.*

BY CAPTAIN T. BENTLEY MOTT, ARTILLERY CORPS.

II.

FIELD-ARTILLERY INSTRUCTION.



HAVING given an idea of the broad lines of training, I will now describe more in detail a single day's exercise, taken at random in the course of shooting practice, at which I assisted at Thoune, one of the three artillery exercise camps.

There were three batteries assembled complete in every detail, ten caissons to the battery, six horses to each carriage, etc. The major commanded and instructed his group, but under the constant supervision of the chief instructor of artillery (having the grade of division commander).

The men were recruits who had already had six weeks training; the non-commissioned officers were doing their regular course of service; the battery officers were lieutenants doing a recruit course as candidate-captains, expecting to be recommended for promotion. The allowance of ammunition was 600 rounds per battery (four guns) for the course.

The first six weeks having been spent in every variety of

L. *Continued from March JOURNAL.

preparatory exercises, drill and instruction, the shooting occupied the last two weeks.

The three batteries assembled at six o'clock. The first battery to fire was in readiness, the others performed some simple evolutions under the sergeants at a walk. All the officers of the group were present at all the firing, took notes and heard the *critique*.

Colonel Kuntz (chief instructor of artillery) directs Lieutenant A—— commanding the first battery, to join him where he should halt, leaving the battery in rear. Colonel K—— indicates the target, a thick line of skirmishers, and roughly the place to establish the battery. Lieutenant A—— joins his battery at a gallop and gives his orders for coming into battery, likewise, if he sees fit, communicates the elevation for the first shots so that the sights can be set as the battery moves up. This it does at a trot. The guns are unlimbered. Lieut. A—— takes post on say the right flank, shows the pointer of the right piece the target and directs him to fire a round of percussion at once, with sight at sixty (this means he estimates the range at something over 2000 meters). The first shot falls short; he commands sixty-eight, the shot is lost in the dip beyond; he tries another at sixty-eight, it is over; drops to sixty four, it is over. Each gun in the battery keeps the sights to correspond with the gun shooting. Lieut. A—— decides that sixty is the right elevation and commands two shots from each gun, salvos, percussion, at sixty, at the same time directing each gun to take its share of the target. He next orders two volleys with shrapnel, shot at sixty. They fall short; he raises to sixty-two, and so on until Colonel K—— orders cease fire.

All the officers then assemble around Colonel K——. The major commanding the group steps forward, note-book in hand, and begins his criticism. He first speaks of the method of coming in battery and location of the guns, invariably saying it was good or bad and why it was so. He then takes up the ranging shots, examines in detail the method of establishing the long and the short fork, explains why it would have been better to creep up from the short shots to the target rather than establish a fork, etc. He then criticises the opening with shrapnel, finds that it would have been better to fire two ranging shrapnel before opening with volleys, etc.

The major having finished, the instructor, Colonel K——, goes over the same ground, but with more authority. He may

differ with the major's conclusions, and if so he frankly says it and gives his reasons. The criticism is for the major's benefit as much as for the battery officers, and the instructor does not hesitate to show him where he is probably wrong. The instructor being an expert in this fire, and as he watches and notes the firing of some 5000 shots a year, his opinion is accepted with great deference.

Sometimes Colonel K—— calls upon a junior officer to make the criticism instead of the major. This keeps each officer present on the alert and he notes each shot and forms an opinion, thus constantly exercising his judgment and observation, and giving



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him mental practice in reasoning out the problem which his comrade is working at practically under his eyes.

Colonel K—— now gallops off to another position, Lieutenant A—— joins him and all proceeds as before.

The first battery now moves off and the second is ready in rear. Colonel K—— takes post elsewhere, Lieutenant B—— receives instructions as to his target (a battery) and where to come into action, and the second battery opens fire. Just as Lieutenant B—— has gotten the range with percussion shell and is about to open with shrapnel at 3000 meters, a line of skirmishers rises suddenly up in the gulch between him and his target. (Colonel K—— has secretly given the signal for these targets to appear). Lieutenant B—— must do something at once. The skirmishers seem about 1200 meters off. He com-

mands sight forty, percussion shell, fires his flank gun twice at forty, drops to thirty-two, raises to thirty-six, orders two volleys with shrapnel at thirty-two then two more at thirty-four, then two at thirty-six, then at thirty-eight (I quote from my notes).

Colonel K—— orders the cease firing. The major criticizes the establishing of the pieces in a line too oblique to the line of fire, finds that the distribution of the target among the guns was unnecessarily delayed, etc. He thinks that when the line of skirmishers suddenly appeared to begin to establish a fork was a mistake, etc.

Colonel K—— goes over the ground more carefully and says that the major is partly right, but he would go even further and say no percussion shell should have been used at 1200 meters, but shrapnel at once, says why, etc.

The third battery now comes up and goes through its exercises, shoots at a target, changes position and exercises at another target.

The range at Thoune is not good beyond 3000 meters, and for the closing weeks of a shooting school, officers go to Zurich and practice at ranges up to 6000 meters.

The Thoune range is rather tricky, full of dips and gulches, making the estimate of ranges no easy matter. There are several patches of woods and ravines. The targets represent artillery in battle, infantry lying, kneeling and standing, in skirmish lines and in thin advancing columns. Some are fixed and some disappearing; all are of pine boards covered with blue paper. The observers are in shell-proof shelters and employ the usual means of plotting the point of burst of each shot.

One of the targets consisted of a long beam mounted on wheels, with sockets for inserting targets. By means of wire rope and pulleys this row of targets was made to advance when desired and at any ordinary speed.

The apparatus could be made readily by a carpenter. The trouble is that a shot hitting the wheel stops the advance.

Everything done or used at Thoune is marked by absolute simplicity. They seek no complications whether of instruction or material. The whole desire is to teach officers to get in their shots quickly and effectively and observe rapidly ordinary targets over average ground.

By this time it is ten o'clock, the shooting is over and each battery drills at battery movements over the broken ground

for half an hour. Then there is drill of the group (our battalion) for an hour and at 11.30 the morning's work is over and all return to barracks.

In the afternoon, while the men are cleaning guns, harness and horses, the officers are assembled in one of the beautifully arranged lecture-rooms—quite like a college amphitheater. Here Colonel K—— delivers a short lecture on the general technical features of the morning's firing. Meantime the observers at the butts have brought in a report of the hits on each set of targets at each firing and also a table showing the true point of burst of each shell. These are plotted on the blackboard, but covered with a sheet of paper whereon is marked the *observed* points of burst. A discussion is made by Colonel K——, mingled with questions, using the observed points as illustrations; he then removes the paper and shows the true points of burst. The deductions useful to the case are made, the mistakes in observation are pointed out along with their probable causes, and the officers are dismissed.

By this time the men have finished the stable work and are formed with the officers for various drills for the rest of the afternoon. Practice in estimating distances is generally carried on diligently at this time.

This represents a typical day's work during the firing exercises.

The targets were for the most part the same, in regard to mechanical arrangements for moving and disappearing features as those described in the chapter in Wallenstadt (see article by Captain Mott in the *Infantry Journal* of Jan., 1906) These artillery targets, however, did not fall when hit. Also there were naturally more targets representing artillery. Some of these were old carriages with steel shields, to show the effect of shrapnel and percussion shell on the new guns.

It may be interesting to here note the admirable arrangements for taking care of the various details of officers and men which succeed each other for the different courses at Thoune. The barrack holds with ease 1000 men. These arrive for training completely uniformed and equipped. They find beds, blankets and all other necessities ready for them. The wash rooms, refectories and dormitories are models of Swiss neatness.

The officers are similarly lodged in one end of the barrack. Each field-officer has a completely furnished room, junior officers are two and three in a room, but they have to bring noth-

ing. Their barrack is run after the manner of a hotel, the state furnishing all except food. This is to be had in the excellent mess. Thus the classes succeed each other at Thoune with the least possible trouble or delay.

Similar arrangements exist at the other training places.

The three weeks' "shooting course" is generally held at Thoune. This is both an examination and a training of the first lieutenant before he can aspire to a captaincy. If he does well he is sent to a recruit course as candidate captain, and then, if later on he is promoted to captain, he must again go through this three weeks' training in shooting.

During all the "courses" at Thoune the material, horses and men are on an absolute war footing, so that all hands become



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accustomed to things as they would be in campaign. Indeed, in Switzerland there is no such thing as peace effectives or peace footing; whatever is done is done on strictly a war basis.

NOTES ON THE MATERIAL.

The gun is the new Krupp field-piece made specially for Switzerland, and comprizing many modifications—all in the line of simplicity—demanded of Krupp by the Swiss committee which presided at the numerous trials—competitive and otherwise—which after six or eight years have finally resulted in the definite adoption of this piece.

This is not the place for a technical description of the gun,

but I may as well remark on a few features. The photographs herewith are due to the kindness of Captain D. W. C. Falls.

The sight is of the open pattern having no collimator or panoramic feature. It has an independent line of sight allowing correction for angle of site, with a cross level for rectifying difference of level in wheels. The sight all other and graduations are in thousandths of the range, so that there is one nomenclature for all. The instrument is strong, handy and simple to read and manipulate.

The gun is perfectly steady during recoil on ordinary soil; it has a folding trail O handspike, a wide but shallow spade, and a flat shield with hinged apron, but when limbered many of the parts are below the level of the axle.

The caisson in action is to the left and slightly in rear of the piece and all the men serving piece and ammunition are not so well protected as in the French arrangement of gun and caisson side by side.

The caisson chest is exactly similar to the limber chest, and each carries forty-eight cartridges. The caisson body is provided with a shield and bottom apron similar to that on the gun. In action the caisson trail rests on the ground supported by a short stationary prop. The ammunition (fixed) is packed in wicker baskets, four rounds in a basket. The baskets are carried to the piece and opened. The fuse is of the dial type, turned with a straight key.

On each caisson body, strapped to the right of the shield, very much in the fashion of carriage lanterns, is a wicker case for holding a square lantern. The lantern can be slipped from the wicker case when required for use as a hand lantern.

On coming into action each gun limber moves off with the other teams to cover, preferably on the flank and rear. Six caissons are left with the guns, their limbers joining the gun limbers and the other four caissons. The officers' horses are led off by the swing drivers on unlimbering. In limbering, the cannoneers raise the gun trail at an angle of about forty-five degrees and keep it there till the teams come up close. This is to show the drivers the direction, whether to come limber front or limber rear. The greatest liberty is allowed as to manner of limbering, little formality other than as above noted being observed. On the march and moving into action two men ride standing on a step fixed to the gun axle, and other

three cannoneers ride on the limber chest. The other two cannoneers ride on the caisson limber.

The draft horses all have collars, the riding horses of sergeants, etc., are provided with breast-straps and coiled rope traces as in the French service.

THE STATE HORSE ESTABLISHMENT OR RÉGIE

While on the subject of Thoune I will give an idea of the *régie* or depot for state horses kept at that place.

The establishment is under a director, a colonel of the permanent force and assistants. Its real object is to provide a number of suitably trained riding horses, ever ready in case of war, for such general and staff-officers as may need extra horses, and for infantry field-officers. In time of peace it serves to provide mounts for maneuvers, for officers attending various courses, for officers attending the schools of equitation, and to a limited extent, it sells horses of suitable blood and training to officers.

These horses are never used for cavalry service; the cavalry buys and trains its own horses. Usually 600 horses are on hand. Of these some are undergoing training and some are for service.

When corps maneuvers take place the depot is ordered to provide so many horses for such and such purpose. The courses at the central schools are about to begin and the depot sends to each place where a school is held enough horses to mount the officers (for staff journeys, etc.).

A school of equitation for infantry officers at Thoune is about to commence, the *régie* is ordered to supply so many horses for this purpose.

On mobilization for war all serviceable horses on hand would at once be distributed to higher officers who did not have their own.

Purchase.—The horses are all bought by officer buyers in the following countries, named in order of importance: Ireland, north Germany, Hungary, Switzerland; all are unbroken. They try to get them (geldings and mares indifferently) from four to four and one-half years old; but in Ireland this is now nearly impossible as buyers from all over Europe are there trying to get good types of the hunter class for military schools, and they buy the best three year olds, and when one looks at a lot at four years old, the best have been picked over. So Switzerland buys many of hers at three years.

The average price paid for these colts—wherever bought—is from \$200 to \$350. The buyer has a lump sum and he pays less for some horses and more for others. A few trained five-year-old Irish horses capable of showing their quality across country are also bought each year; for these about \$500 is paid. I saw in the stables a dozen of these—fine specimens of the Irish hunter.

Some 160 horses are bought each year. They are watched, carefully fed and acclimated during three months. For the most part they run on grass, are stabled at night, well groomed and fed grain. Their training begins when about four and one-half years old, in harness, alongside of an old horse. This goes on for three months. Then, when coming five years, according to development and precocity, they are broken to the saddle and given progressive work and weights.

This training is all done, as at Berne, by civilian trainers who do nothing else. There are sixteen of these excellent men at Thoune. They put in seven hours a day mounted. All the grooming, etc., is done by civilian employees, and it is thoroughly well done.

After usually one and one-half years of work leading up to the three gaits and jumping all sorts of obstacles, the horse is considered ready for service and is sent to one of the schools, to maneuvers, etc., as required. It can be seen that the Swiss officer gets a chance to know what a good horse is from the very first, and I would say that in general, arm for arm, he is, whether on his own or a government horse, far better mounted than the American officer. His riding is generally indifferent, as would be expected from the short time he has to learn in.

There are three large riding halls at the *régie* and three more at the training barracks. It is in these halls that horse training and riding instruction are given. To the latter come infantry officers for regular courses, veterinaries, doctors and staff-officers.

The infantry officers begin with three hours a day, plus one hour of horse gymnastics, raise to four hours, then to six.

After these school terms, when the horse has been used by unskilful hands for many months, he is returned to the *régie*, as the director puts it, "for repairs." He is gotten in good shape again by the trainers and goes out for another season of instruction.

Officers can occasionally get authority to buy a horse from

the *régie*; the surplus, usually the worst, amounting to about 150 a year are sold to Swiss citizens, who bind themselves not to sell the horse, not to send him out of the country, and agree to hire him to the government when wanted for maneuvers and similar service.

I examined all the horses and stables. They were beautifully groomed and the equipment well kept. The stables were airy and clean. About a hundred of the high-class horses were in box stalls. My visit was entirely unexpected and unannounced, but everything was as if prepared for inspection.

POSITION OR SIEGE ARTILLERY.

This is composed of twenty-five companies of foot artillery divided into groups of five companies each (two *élite* and three *Landwehr*). The armament is mostly twelve centimeter (five inch) guns and mortars. This force is attached to armies when formed.

FORTRESS ARTILLERY.

There are only two "fortresses," St. Gothard and St. Maurice, each being really a region of passes with several distinct fortifications. To the first region are assigned two "divisions" of fortress artillery, in all eight companies, plus two machine-gun companies, each company having either six or eight guns, and a sapper company.

To the St. Maurice forts are assigned three companies of artillery and a company of machine guns (twelve pieces) and a sapper company.

These organizations were created eight years ago to man the mountain defenses of St. Gothard and St. Maurice. The men come from the territory immediately around these places and all their military training is carried out in the immediate neighborhood of the forts. In winter the forts have small permanent detachments of caretakers.

The question naturally arises, Why have the Swiss defended these two passes and left the whole of their frontier to the north, east and west open? A distinguished officer to whom I put this question answered with a smile that it was doubtless because the Italian frontier could be so readily and cheaply defended and it sounded well to make a start in creating frontier defenses. To pretend to fortify the French, German, or even the Austrian frontier would require an immense outlay.

It may, moreover, be remarked that most likely the Swiss chiefly fear a violation of their neutrality by the Germans. If the Triple Alliance were at war and such violation took place the Swiss have made their backs safe from invasion via Italy, the French frontier under these circumstances would need no defense and the whole field army would be free to defend the German frontier and the small strip assailable from Austria.

THE ENGINEERS.

The army is justly proud of its engineers. They are recruited, both officers and men, from experts in civil life. The bridge trains come largely from the skilful river boatmen, and the railway and telegraph troops are all professionals in those callings.

A most excellent balloon establishment exists at Berne.

The topographical bureau is a model of its kind, and the staff maps of Switzerland (scales 1:25,000, 1:50,000 and 1:100,000) are perhaps the most perfect specimens of this work in the whole world.

The every-day Switzer probably uses maps more than any other man of corresponding class; and at maneuvers, and even small field exercises, nearly every man, even the private, is given a map, and he uses it with remarkable intelligence.

THE GENERAL STAFF.

The general staff is organized on lines familiar in the German staff. It consists briefly of:

Officers of the general staff, adjutants or assistants detailed from troop officers, officers of special arms or services, secretaries or clerks.

The chief of the army general staff has under his orders an organization divided as follows:

1. Staff section; operations, correspondence, post and telegraph.
2. Section of roads and railways, forwarding of supplies.
3. Adjutant general's department, reports, police, headquarter troops, guard.
4. Chief of artillery.
5. Chief of engineers.
6. Surgeon general.
7. Chief veterinary.
8. Judge advocate-general.
9. Chief commissary—pay, clothing, equipment, lodging.

Corps and division staffs are organized on the same lines.

There is a general staff school for forming officers who desire to enter that service.

The first course is for lieutenants and captains, lasts seventy days and includes a staff ride.

The second is for captains and majors who have formerly pursued the first course successfully, and lasts forty-two days and includes a staff ride.

General staff officers are called out six at a time to each territorial subdivision headquarters to do the work of those headquarters.

THE CORPS OF INSTRUCTORS.

The permanent personnel of the Swiss Army consists of 200 officers known as "instructors" of the 1st, 2d and 3d classes. They are generally selected when young and advanced in rank



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till the highest grade is reached about the age of forty. They may or may not be assigned to command of a unit—regiment brigade, army corps, etc. Not more than one-fourth, however, may be so assigned. This is done to prevent the professional officers from getting all the higher commands, to the discouragement of the non-professional or militia officers proper. The instructor, therefore, does not take the place of the commander of a unit, but is his adviser.

A lieutenant having passed with credit through all the

courses for his grade (as recruit, as candidate-corporal as corporal in a recruit course, as sergeant in say division maneuvers, as candidate-officer, shooting school of Wallenstadt as officer, recruit school as officer, one or two regular training courses of his regiment) may make application for the post of instructor, meaning thereby to embrace the army as his sole and permanent profession.

By this time he is well known to his superiors, and if they—especially his immediate instructors—recommend him, he is appointed candidate-instructor and is assigned to the arm he asks for and given station at a training camp. (An officer seeking the post of instructor must almost always be a university graduate and especially must have taken the military course at the Ecole Polytechnique of Zurich; he must be of good respectable family—generally he has some little income of his own). Here he works under the head instructor, in the various courses, teaching recruits, non-commissioned officers forming officers, etc. He spends practically the whole of his time all the year round out of doors with the various classes undergoing instruction, aiding, advising, correcting and noting.

Upon the excellence of his work depends his promotion, which is strictly by selection on the recommendation of his superiors. Some instructors never get beyond third or second class.

Instructors are assigned from time to time to command regiments, divisions, etc., for their own instruction, but their chief work is at the various "schools" where they form the cadres of the army. During the autumn maneuvers they have no part unless as umpires. They meet once a year and make recommendations to the chiefs of each arm, to whom they are responsible. They thus keep the instruction throughout the army uniform.

Whenever these officers reach an age when they are no longer active enough to be useful they are simply put out; no pension or pay whatever is given them.

Promotion, as explained before, above the grade of second lieutenant is strictly by selection in the Swiss Army and the result of this system is seen in the youthfulness of the higher grades. Lieutenant-colonels of thirty-five, brigade and division commanders of forty-five, chiefs of arm under fifty, etc. I have seen but one Swiss officer who seemed what we could call "an old man."

The law absolutely restricts this selection to those officers recommended by their superiors. The political power appoints, but may not appoint anyone unless recommended by his chiefs. The cantonal political authorities appoint up to major in the infantry and captain in the cavalry; the central authorities to all higher grades.

I am told there is the play of influence inevitable in republics as well as monarchies, but it is never flagrant, and if some good men are passed over a bad one is rarely chosen and never twice.

CLOTHING AND EQUIPMENT.

The Swiss soldier is very well and neatly dressed and equipped.

Each man receives one cap, one overcoat, one dress coat, one blouse, and one pair trousers, which he keeps at home. At the barracks there is given the men undergoing training a second suit for rough and dirty work. This suit remains at barracks and passes on from man to man.

The equipments are all of fair leather. The cartridges are carried in boxes at the waist belt and in a half-bandoleer. The knapsack is heavy (what one is not?), but is very compactly arranged and well composed. It is worn well down in the small of the back and does not at all interfere with shooting prone. The overcoat is strapped around it in the German fashion, the mess tin (black) strapped on the outside. The knapsack is of cowskin tanned with the hair on. A small haversack and canteen completes the equipment.

The rifle is habitually carried with the leather sling over the right shoulder, barrel to the rear and vertical, the right hand resting on the sling, forearm horizontal.

The infantry man's personal clothing weighs.	11	lbs.
Rifle and sling.....	10.5	"
Knapsack with overcoat but without rations or cartridges.....	20.25	"
Canteen full and haversack with 1 ration of bread.....	5.5	"
Belt, bayonet and pouches.....	3	"
Pick or shovel.....	2.5	"
150 cartridges.....	10	"
Two iron rations.....	3	"
Total.....	66	lbs.

The regulation saddle is excellent in shape and rarely causes sore backs. It weighs twenty-three pounds. Count-

ing everything, even the man's clothing, the horse carries seventy pounds besides his rider.

PAY, PENSIONS AND INSURANCE.

During periods of training officers and men are paid what is considered sufficient to cover expenses. It is not payment for services, properly speaking, but reimbursement of expenses only.

The following is the pay table per day:

	ACTIVE SERVICE	INSTRUCTION SERVICE
Major-general.....	\$6.00	\$3.40
Brigadier-general.....	5.00	3.40
Colonel.....	4.00	3.40
Major.....	2.40	2.00
Captain.....	2.00	1.60
Second lieutenant.....	1.40	1.00
Sergeant, mounted.....	.40	.40
Sergeant, foot.....	.30	.30
Private.....	.16	.16
Recruit.....	.10	.10

Every officer as well as every soldier receives a ration. An officer is allowed on instruction service eighty cents a day for foraging his horse. Horses are in principle furnished mounted officers in kind or by indemnity. Officers receive quarters in camp or garrison and traveling expenses on duty.

The ration is one and one-half pounds bread, two-thirds pound meat and one-half pound vegetables.

There is an invalid pension law on familiar lines which grants pensions to families of deceased or invalidated soldiers varying from \$130 to \$20 a year.

Besides this the state insures every soldier against accidents during his peace training. This was formerly done by contract with insurance companies; the State now runs its own insurance office.

Unlike most countries Switzerland taxes the present to pay for future wars. For half a century she has been accumulating a fund to pay the pensions resulting from any future war. This sum now amounts to \$3,700,000.

USE OF PRIVATE LANDS FOR FIELD TRAINING.

In Switzerland as in nearly every other country except the United States the law permits the army during any of its work to maneuver over the fields of any citizen, all damages being paid

for. This authority is used with great discretion and the damages are small. All field work is much more usefully done across country than on a government reserve and except for target-practice and some cavalry and field-artillery exercises, the Swiss do not even desire a drill ground; their marching is done on the roads, their drill across the fields. Even for combat exercises of battalions and regiments a rough country is selected, the roads blocked, notices posted, danger flags hoisted and the firing begins.

England has a similar law, the text of which was sent with my report on the English maneuvers for 1903. The English and the Swiss are probably more jealous of individual and property rights than are any people in the world, but they have cheerfully acceded to the inexorable necessities of modern military training.

MILITARY TAX.

Every Swiss citizen, at home or abroad, between the ages of twenty and forty-four, who is not enrolled in the active or reserve armies, is obliged to pay a military tax. Between the ages of thirty-two and forty-four the tax is one-half.

Therefore, all men who are not accepted as recruits (about 50%) and all who for any reason whatever are excused from military service, pay the tax. The tax is of three kinds:

1. Military Poll tax of six francs.
2. Military Property tax of 15% of assessed value of property. Property under \$200 not taxed.
3. Military income tax of 1.5% on income.

The total military tax paid by any one person cannot exceed \$600.

The assessments are rigorously made and every penny exacted.

This tax is in addition to other taxes.

COST OF A SWISS SOLDIER.

Leaving out cost of rearmament, the Budget of the Confederation for 1901 was.....	Fr. 28,713,600
The budgets of the separate states of the confederation or cantons cannot be given exactly. An expert estimates it at from three to five millions per annum for all cantons, say.....	Fr. 5,000,000
Total for support of army.....	Fr. 33,713,600

Assuming the expenditure to be roughly thirty-five million francs, or seven million dollars, the cost of each soldier of the 200,000 in the first line (which can be instantly mobilized) amounts to thirty-five dollars a year. The second line costs nothing.

The annual appropriations for our army show that each regular American soldier costs twenty-eight times as much as his Swiss comrade.

To compare the availability of the two forces for war is not so easy as to compare the cost, though our force of regulars and organized militia taken together has about the strength of the Swiss active or élite army.

Switzerland can mobilize an army corps in three days, ready in every particular of organization, equipment, munitions and transport, to march against the enemy; she can mobilize four such corps at one and the same time. Just how many days it would require to concentrate in one place 30,000 of our regulars with all their baggage and transport, or how long to assemble four such commands of regulars and militia, it is difficult to say, but probably it would be nearer three weeks than three days.

Comparisons may be odious, but when to maintain 1000 men costs twenty-eight times as much in one country as in another, the relative readiness for war of the two forces is worth examining.

[TO BE CONTINUED]

WHO LOST THE BATTLE OF WATERLOO?

BY COLONEL ROBERT W. LEONARD, LATE U. S. V.



he November JOURNAL contains a review of Houssaye's "1815" as "a valuable contribution to the literature of Waterloo," etc.

Houssaye certainly writes in a very convincing manner; he has produced an exceedingly attractive story, but like an historical romance, it should not be taken too seriously.

Frenchmen are too sympathetic to be quite accurate historians. If one has views that he wishes to enunciate and insist on, he writes a book; but as a partisan.

Houssaye seeks to throw the blame for the disaster at Waterloo on others rather than upon Napoleon.

Napoleon never would admit that he was wrong, or had made a mistake; he regarded such an admission as a mistake in itself, and was at a loss to understand the mental attitude of one who would voluntarily make a damaging personal admission. Many of Napoleon's admirers are also unwilling to admit that he was fallible.

Napoleon's failure to win at Waterloo may be attributed partly to his unfortunate selection of men to carry out his plans, but mainly to his unaccountable attacks of inertia. Everything that he was fighting for depended on his activity, yet twice he allowed hours, even an entire day, to elapse with hardly a move.

C. E. L. quotes Houssaye as saying that Ney was too circumspect on the 15th or the Sambre would have been crossed by noon.

Houssaye could hardly have made that error. The Sambre was crossed at noon by Pajol's cavalry at Charleroi. Reille crossed at Marchienne before noon and Gérard at Châtelet, just south of Fleurus.

Ney was not ordered to join till the 11th. He joined in such haste that he was unprovided with horses, and had but one aide. He reported for duty at five p. m. at Charleroi, on the north bank of the Sambre. Ney had purchased horses

from Marshal Mortier who was sick, but they had not yet arrived.*

Ney with the rest of the marshals of the Empire went over to the Bourbons at the restoration, and all had been retained with their rank. Soult was Minister for War.

When the Court learned that Napoleon had left Elba and had landed on French soil, Ney was despatched with 6000 men to arrest him. Ney boasted that he would bring Napoleon to Paris in an iron cage.

On the appearance of the irresistible man before Ney's troops, the men threw away the white cockades and from pockets and knapsacks brought out the tricolor that had marched triumphantly over Europe. The situation was too much for Ney: he returned to his allegiance to the Emperor.

Grouchy had never commanded a larger body than a division. He had served creditably in the cavalry. It is his charge at Friedland that forms the subject of Messonier's painting—1807. He had just been appointed marshal and was given the command of the reserve cavalry consisting of four corps, commanded respectively by Pajol, Exelmans, Kellermann and Milhaud, numbering 13,784 men.

The campaign had hardly opened when he was relieved from this command, where he should have done well, and put in command of the right wing, consisting of the Third Corps (General Vandamme) and the Fourth Corps (General Gérard) together with a force of cavalry.

The promotion of Grouchy was bitterly resented by Vandamme, an officer who did not restrain himself in the matter of criticism. His expressions were coarse and vigorous. He thought that he should have been made a marshal rather than Grouchy, and did not hesitate to say so. Gérard regarded him as an interloper, and together they doubtless were a pair of most unpleasant subordinates.

Berthier, who had served on Napoleon's staff for nearly twenty years, had also taken service with Louis XVIII. On the return of the Emperor, not finding it possible to play with his allegiance as with a shuttle, he retired to Bamberg, in Bavaria, and there committed suicide (June 1st).

*It is said he purchased horses from Marshal Mortier, the Duke of Treviso, who was confined to his bed by an attack of sciatica. Inasmuch as Mortier was in Beaumont, less than twenty miles from Charleroi, the statement that his horses had not arrived is not easy to understand.

Soult was appointed chief of staff. He had never before served as a staff-officer.

For years he had exercised high command, notably in Spain. He had always had a chief of staff of his own, to whom he left the details of administration and direction.

Soult was also an unsuccessful general; he and 250,000 Frenchmen had been maneuvered out of Spain and over the Pyrenees by Wellington, who never had more than 50,000 English, including the German Legion, under his command.

Wellington, however, had also an army of Spaniards and Portuguese, but on them he placed little reliance; not that the Spaniards were less brave than the Spanish infantry of Alva's time, but unfortunately for Wellington they were commanded by Spanish grandees, who felt that the campaigns, although fought in their behalf and for their existence, should be conducted with due regard to their grandeur.

Wellington said that he used to go down on his knees to these grandees, but "did not care a damn if they would only do as I wished."

His diplomacy almost equalled that of Marlborough, when he, the greatest living general, insisted on serving behind the chair of the first king of Prussia (grandfather of Frederick the Great), protesting that the honor was too great for him.

For this gratifying deference Marlborough got the "Old Dessauer," with 10,000 of King Frederick's unequalled infantry.

The "Old Dessauer" invented the iron ramrod and the equal step. Carlyle says, "The old Dessauer's word of command is still heard in every army in the world."

Davout was appointed Minister of War, and to the command of Paris. He begged for a command in the field. Napoleon said, "I cannot entrust the command of Paris to anyone else." Davout replied, "If you are victor, Paris will be yours, and if you are beaten, neither I nor anyone can do anything for you."

Ropes remarks: "What Napoleon lost by not having Davout with him in this campaign, is hard to estimate; but it would probably not be going too far to say that Davout in the place of either Ney or Grouchy would have prevented the catastrophe of Waterloo."

Marshal Ney was an unsuccessful general; he had been badly beaten at Dennewitz, September 6, 1813, by Bülow,

who now commanded a corps under Marshal Prince Blücher. At Dennewitz Bülow (henceforth Count Bülow Von Dennewitz) held his ground with 40,000 Prussians against Ney with 80,000. On the arrival of the Swedes and Russians, Ney retreated in great disorder.

The blame for the employment and assignment to duty of these marshals rests entirely on Napoleon. He must have known their capabilities and their limitations.

Soult was a failure as chief of staff. He too, would doubtless have done well in the place of Ney or Grouchy.

The marshals were all rich and famous; they had nothing more to gain, but had much to lose. The campaign would not have suffered had those who were employed remained on their estates, as did the rest of the marshals.

Let us follow the record of these four eventful days: At 2.30 A. M., June 15th, the Prussians were in cantonments from Thuin on the Sambre, (ten or twelve miles up the river from Charleroi) to Namur, at the confluence of the Sambre and Meuse, and on the Meuse from Namur to Liege, an extent of about sixty miles. Ziethen had the First Corps, with headquarters at Charleroi; Pirch I. commanded the Second Corps, with headquarters at Namur; Thielemann with the Third Corps lay at Ciney, about twenty miles southeast of Namur, and Bülow with the Fourth Corps was at Liege, about thirty-five miles down the river from Namur.

The English, or allies were in cantonments at Ghent, Audenarde and Tournay on the Scheldt, and in all the villages west of the Brussels-Charleroi road. The Duke of Wellington had his own headquarters at Brussels. Marshal Prince Blücher was at Liege.

The French lay between Valenciennes on the Scheldt and Charlemont on the Meuse, but at two-thirty on the morning of the 15th had practically completed their concentration, less than twenty miles south of Charleroi. Vandamme with the Third Corps was about two and a half miles from Thuin; the cavalry, the Sixth Corps (Lobau) and the guard lay between the Third Corps and the Emperor's headquarters at Beaumont (Beaumont is about eighteen or twenty miles southwest from Charleroi); the First Corps (d'Erlon) lay at Solre sur Sambre, twenty miles up the river from Charleroi; the Second Corps (Reille) was at Leers, some six miles down the river from

d'Erlon; Gérard, with the Fourth Corps was at Philippeville, twenty miles south of Charleroi and Châtelet.

At this time neither the Prussians nor the English had broken their cantonments, although the French were at their outposts.

In fact, it was not supposed that Belgium would be the theater of war. Three hundred and seventy thousand Russians and Austrians were slowly rolling toward France. On them, it was expected the brunt would fall.

The Duke of Wellington had "the worst army that any general was ever asked to command." His army was made up of English, the King's German Legion, Belgians, Nassauers, Hanoverians and Brunswickers. Of the 68,000 engaged in the Battle of Waterloo there were but 30,000 on whom the Duke could rely—24,000 of these were English and 6000 belonged to the German Legion. Seven thousand only of the English were seasoned troops, the rest were second battalions that were making their first campaign.

The flower of the Peninsular Army had met with defeat at the Battle of New Orleans (Jan. 8, 1815), and were not yet available for the field. Some of them were just then landing at Ostend. Ten thousand of the Belgians departed in a body from the battle. Col. Basil Jackson, in his "Notes and Reminiscences of a Staff-Officer," says: "I peeped into the skirts of the forest (Soignes) and truly felt astonished. Entire companies seemed there with regularly piled arms, fires blazing under cooking kettles, while the men lay about smoking." The Duke prudently distributed the 24,000 English and the 6000 of the German Legion among the heterogeneous array that composed his army, so that everywhere in his line there might be something that was firm.

General Ziethen was attacked at Thuin at four o'clock on the morning of the 15th.

He made such defense as was possible and retired to the left or north bank of the Sambre; his corps was at Charleroi at ten o'clock A. M.

No information of this affair reached the Duke till three o'clock P. M.

The Prince of Orange went to Brussels to dine with the Duke at three P. M., and brought the intelligence that Ziethen had been driven north of the Sambre, and that his own outposts at Binche had been attacked. The Duke then issued

orders for concentration at Nivelles, (six miles west from Quatre Bras). A little later Baron Muffling (the Prussian attaché with the Allied Army) corroborated the information.

So far everything was in favor of the Emperor. He had taken his enemy unawares. They were in detachments from Ghent to Liege, more than one hundred miles apart, while the French were well closed up.

Gérard crossed the Sambre at Châtelet; Reille crossed at Marchienne before noon, about two and a half miles up the river from Charleroi. Pajol with his cavalry, 3500 strong, entered Charleroi at noon.

Reille marched on Gosselies, about five miles north of Charleroi, and dispersed the Prussians whom he found there. D'Erlon was also ordered to Gosselies to act in conjunction with Reille, but for some reason he did not cross the river till the next morning—June 16th.

The Napoleon of former days would have done something notable on the afternoon of the 15th; there was nothing to oppose him but Ziethen's corps.

Blücher was now hastening the concentration behind Fleurus at the villages of St. Amand, Bry, Ligny and Sombref of the three corps commanded respectively by Ziethen, Pirch and Thieleman. Bülow, with the Fourth Corps, marched from Liege to Hannut, twenty-five miles, and halfway to Wavre. At seven o'clock A. M., June 16th, Ziethen and Pirch were in position at Sombref.

Thieleman arrived about two P. M. Between noon of the 15th, at which time Napoleon's cavalry entered Charleroi, and two o'clock of the afternoon of the 16th, Blücher was allowed to get three corps of his scattered forces together at Ligny, only ten miles from the Emperor's headquarters at Charleroi.

If it were the intention of Napoleon to separate Blücher from Wellington and prevent their co-operation, it would seem a simple thing to have driven the Prussians on the 15th toward Liege, and then to have turned and dealt with Wellington. The French Army would then have been intact, over 100,000 strong, and all of them under the Emperor's eye and direction.

Here is a loss of twenty-six precious hours, and a neglected opportunity.

The Emperor attacked the Prussians between two and three

o'clock. At about six o'clock, just as he was about to make an assault on the Prussians that he intended should be overwhelming, troops were seen beyond St. Amand; the assault was delayed until it should be discovered if these unexpected troops were friends or foes. The newcomers were d'Erlon's corps, and they should have been taking an active part, either at Quatre Bras, or at Ligny. Participation by d'Erlon in either battle would have meant a complete defeat of the enemy. D'Erlon halted about two miles from the field of battle. One hour was lost; Napoleon's assault was not as effective as it would have been; darkness came on, and Blücher was spared something of that which his enemy had prepared for him.

By nine o'clock p. m. the Battle of Ligny had been fought. Blücher was retiring in good order on Wavre, leaving Ziethen to hold Sombref.

Ziethen appears to have been at Sombref the next morning, for the Duke sent Lt.-Col. Alexander Gordon with two squadrons of the Tenth Huzzars to communicate with the commanding officer of the Prussian Army.

Gordon found Ziethen at Sombref, returned and made his report, upon which the Duke observed: "Blücher has fallen back, so we must go too." (June 17th.)

Napoleon assumed that Blücher would fall back on Namur or Liege; he took very little trouble to ascertain, however, if this were really his line of retreat.

If Blücher went to Wavre it would be for the purpose of uniting with Wellington at Waterloo, a place that had been thoroughly examined by the Duke, by his engineers, by Sir Hudson Lowe and by Lowe's successor as chief of staff, Sir William De Lancy, and determined upon as the best place to fight a battle—if one were necessary—for the defense of Brussels.

We will leave Napoleon making himself comfortable for the night, ignorant of Ney's battle at Quatre Bras, only ten miles distant; Ziethen at Sombref, practically on the battle-field; Blücher marching on Wavre, and see what Marshal Ney was doing to further the plan of campaign.

At five o'clock on the afternoon of June 15th, Ney reported for duty at Charleroi, and was assigned to the command of the First and Second Corps and Kellermann's cavalry.

At midnight on the 15th, Ney returned to Charleroi for instructions. These were verbal, and it is not known what

they were. Napoleon afterward said that he gave Ney orders to occupy Quatre Bras that afternoon (15th). Napoleon said so many things at St. Helena about what happened on these eventful days, that much credence cannot be placed in his statements, unless otherwise verified.

The next morning at eight o'clock the Emperor wrote the following letter to Ney:

Charleroi, June 16th, 1815.

To Marshal Ney:

I send my aide-de-camp, General Flahault, who will present this letter.

The major-general (Soult) has given you your orders, but you will receive mine sooner, as my officers are quicker than his.

You will receive the order for the day, but I wish to write to you in detail, because it is of the greatest importance.

I am sending Marshal Grouchy with the Third and Fourth Corps of infantry to Sombref.

I will send the guard to Fleurus, and shall go in person before noon.

I shall attack the enemy if I find him, and will clear the road to Gembloux.

Then, according to events, I will determine what I shall do next—perhaps at three o'clock in the afternoon, perhaps in the evening.

My wish is that immediately after I shall have made my decision, that you shall be ready to march on Brussels. I will support you with the guard, which will be at Fleurus or Sombref, and I wish to arrive at Brussels to-morrow morning (17th).

You will march this evening, if I make my decision early enough, so that you can be informed to-day, and make three or four leagues this evening and be in Brussels at seven o'clock to-morrow morning.

You can dispose of your troops in the following manner: One division two leagues in front of the four crossroads, if nothing prevents; six divisions around the four crossroads and one division at Marbais, which I can draw to myself at Sombref if I need them.

This will not delay your march. The corps of the Count de Valmy (Kellermann), 3000 cuirassiers d'élite, at the intersection of the Roman road with that of Brussels, that I may draw it to myself if I have need. I wish to have with me the divisions of the Guard commanded by General Lefebvre-Desnouettes, and I will send you two divisions of the corps of Count de Valmy to replace them.

But in my plan I prefer to place Count de Valmy where I can recall him if I wish and not compel General Lefebvre-Desnouettes to make false marches, since it is probable that I shall decide this evening to march to Brussels with the Guard.

I have adopted as a general principle during this campaign to divide my army into two wings and a reserve.

Your wing will be composed of four divisions of the First Corps, four divisions of the Second Corps, two divisions of light cavalry and two divisions of the Count de Valmy's Corps.

This should give you 45,000 or 50,000 men.

Marshal Grouchy will have about the same force and he will command the right wing. The Guard will form the reserve and I will go from one wing to the other, according to circumstances.

The major-general (chief of staff) has given the most precise orders, so that there cannot be any difficulty about obedience to your orders when you are detached. Corps commanders will take their orders directly from me when I am present.

Under certain circumstances I may weaken one wing or the other to strengthen the reserve. You will feel the importance of taking Brussels.

A prompt movement will isolate the English Army of Mons, Ostend, etc.

I wish your dispositions to be such that on the first order your eight divisions may march rapidly and without obstacle on Brussels.

N.

Now we shall see what was done to carry out the plan outlined in the above letter:

Ney should have been in receipt of the Emperor's letter by nine o'clock A. M., as he was but five miles from Charleroi.

Quatre Bras was the natural place for the Duke's army to concentrate if he meditated a stroke against Napoleon, or designed to reinforce Blücher.

The Prince of Orange directed the troops at Nivelles to march to Quatre Bras.

Ney was dilatory in executing his orders. He ordered d'Erlon to halt at Frasnes. Kellermann was ordered to leave one division of cavalry at Frasnes and the other at Liberchies. (Frasnes is about two miles south of the battle-field of Quatre Bras, and Liberchies is two miles south of Frasnes.)

Quatre Bras is seven and a half miles north of Gosselies, where Ney made his headquarters the night of the 15th.

Ney attacked Quatre Bras with two divisions only, at about two P. M., instead of early in the morning with both corps.

When Ney began his attack the sole force of the enemy was Perponcher's Dutch Belgian division, about 6000 strong.

Ney was presently reinforced by the Third Division of the Second Corps and gained ground.

The Duke of Wellington reached the field from Bry (where he had been to confer with Blücher) at about half-past two and assumed the direction.

At three-thirty P. M. Picton arrived with his division, followed by the Duke of Brunswick's Corps, and Ney found himself somewhat outnumbered.

The Dutch Belgians retired, the Brunswickers were broken and the Duke of Brunswick was killed—the battle was maintained by the English and Hanoverians.

At five o'clock two brigades of Alten's division arrived, giving Wellington about 30,000 to Ney's 20,000.

Ney had not been reinforced by d'Erlon or Kellermann, although he had been expressly ordered to employ all in the movement on Quatre Bras. In fact, the Emperor's letter was as completely disregarded as though it had never been written. For that matter neither did Napoleon pay any attention to the excellent plan that he outlined in his letter to Ney.

As the First Corps was on the way to Quatre Bras a staff-officer from Napoleon met the leading division—Durutte's—and ordered it to Ligny.

D'Erlon had ridden on ahead. When he learned what had happened he galloped after his troops. When near St. Amand an order came from Ney directing the immediate return of the corps. Whereupon it marched back to Frasnes, arriving about nine o'clock P. M., without participating in either battle.

If Ney had used his 43,000 men vigorously early in the morning of the 16th, Wellington would have been unable to assemble at Quatre Bras, and it ought to have been nearly impossible for him to concentrate at all.

The waste of time and the neglect of the golden opportunities of the 15th and 16th were bad enough, but worse is to follow.

Activity on the part of Napoleon on the early morning of the 17th would have repaired the faults committed by himself and Ney on the previous days. Ney had fallen back on Frasnes after the battle of the 16th. On the morning of the 17th his strength and that of the Allied Army was equal. Ney might have renewed the attack.

Napoleon had the Sixth Corps (Lobau's) with which to reinforce Ney. This corps had been held in reserve the previous day; d'Erlon corps had not been engaged, and part of the cavalry was also fresh.

Napoleon first knew of the battle at Quatre Bras when General Flahault returned on the 17th at eight o'clock A.M. General Flahault also brought word to Napoleon that Ney had received no news of the Battle of Ligny. Thereupon Soult wrote a despatch to Ney informing him that the Prussians had been put to rout, and that Pajol was pursuing on the roads to Namur and Liege; the despatch also said: "If the

corps of d'Erlon and Reille had been together not an Englishman of the troops that attacked you would have escaped.

"If the Count d'Erlon had executed the movement upon St. Amand which the Emperor ordered, the Prussian Army would have been totally destroyed, and we should have taken perhaps 30,000 prisoners.

"The Emperor desires that your seven divisions of infantry and your cavalry shall be well organized, and that together they shall not occupy more than one league of ground, so that you may have them in hand."

The accounts of d'Erlon's movements, and what was expected of him on the 16th are conflicting. Lieutenant-Colonel Baudus, who was on the staff of Marshal Soult, says: "Napoleon called me" (when the battle of Ligny was at its height) "and said, 'I have sent an order to the Comte d'Erlon to direct his whole corps in the rear of the right of the Prussian Army. Go, and carry to Marshal Ney a duplicate of this order. You will tell him that whatever may be the situation in which he finds himself it is absolutely necessary that this should be executed; that I do not attach any great importance to what is passing to-day in his wing; the important is here, because I wish to finish with the Prussian Army. As for him, he must, if he cannot do better, confine himself to keeping the English Army in check.'" This does not coincide with Soult's despatch to Ney on the morning of the 17th reproaching him for allowing the English to escape.

Napoleon must have supposed that d'Erlon would be with Ney at five P. M.

Ney said he never received this order; that he learned the corps had gone off by sending to Frasnes for it, and finding it gone.

Then, again, if Napoleon had sent for d'Erlon's corps and was expecting it, why should he have delayed his assault on the Prussians, on the unexpected appearance of troops near St. Amand?

Everyone taking part in this Belgian campaign who could wield a pen wrote a memoir. These memoirs generally rank with the historical novel, and they have given the historians a deal of trouble to sift and verify—to sift, in search of a grain of truth that may be hidden in a bushel of chaff.

The weather on the morning of the 17th was fine; there was no reason why an attack by all the available force should not be

made as quickly as possible on Wellington's 45,000 at Quatre Bras.

Napoleon had 105,000 men. With these had he marched at daybreak—the sun rises in Belgium at four o'clock at this time of the year—Wellington to a certainty would have been overwhelmed.

The Emperor could have been at Quatre Bras by seven o'clock. The Duke did not withdraw till ten o'clock, covering the withdrawal by cavalry and skirmishers, and was beyond Genappe before his retreat was discovered.

Pajol had been sent to follow the Prussians toward Namur. Berton's brigade of Exelman's corps was also sent out in support of Pajol. Berton sent back a report that he had been led by statements of the inhabitants to proceed to Gembloux, where he had seen at nine A. M. a Prussian corps of 20,000 men (Thielemann's).

That no move of importance was contemplated appears from this sentence in Soult's note to Ney: "To-day will be needed to terminate this operation, to supply ammunition, bring in stragglers and to call in detachments. Give your orders accordingly and see that all the wounded are transported to the rear."

Everything tends to show that utmost confidence reigned at Napoleon's headquarters: he was quite indifferent to what his enemies were doing; he would look after them again when he got ready.

Jomini remarks: "Undoubtedly the Emperor had powerful motives for resigning himself to such inactivity; but these motives have never reached us."

Napoleon knew he had not won an overwhelming victory over Blücher. Still he remained on the field of battle, riding over it, and talking politics with his generals.

The Emperor broke camp about noon and marched on Quatre Bras, first detaching Grouchy with 33,000 men to follow the Prussians.

His energy that afternoon appeared to have returned to him—his impatience was such that he left his carriage for the saddle before reaching Quatre Bras.

He gave Ney a "piece of his mind" when he found that the English had escaped.

Regardless of the rain that drenched him to the skin he pursued with the van to the battle-field of the next day, where

he found the Allied Army firmly established and prepared to give battle.

Vandamme left Ligny to follow the Prussians at two P. M. Gérard followed an hour later. On account of the rain, which began to fall about three P. M., Grouchy went no farther than Gembloux that night (six miles).

The retreat of the Prussians on Wavre was successfully accomplished and it had escaped the knowledge of the French. Blücher arrived at Wavre at noon. He was somewhat disturbed about his ammunition from Liege, but that arrived safely at five o'clock P. M.

On the night of June 17th Blücher had 90,000 men at Wavre, Napoleon had 72,000 at Mont St. Jean and Wellington was confronting him with 68,000.

Gneisenau, Blücher's chief of staff, was not eager to join Wellington. He had taken a dislike to him and distrusted him, as is abundantly shown by his correspondence with Baron Müffling. He tried to persuade Blücher that Wellington would leave him in the lurch. Blücher, however, was anxious to join Wellington with his entire army, not with the two corps only that the Duke had asked for.

The conclusion is irresistibly forced on one, in following the correspondence of Gneisenau and the movements of the Prussians, that Gneisenau expected Wellington to get the worst of the impending battle, and that he (Gneisenau) lying behind the woods of Frischermont could debouch and fall on Napoleon's flank afterward and win a victory after the Duke's defeat. Napoleon had lost 20,000 men when Gneisenau finally crawled on the field of battle at five o'clock in the afternoon with his 90,000 men.

At this moment the French could not muster much more than 50,000; Wellington somewhat less.

It must be borne in mind that Gneisenau was a very influential person; he was supposed to be an able general, and had been assigned to the impetuous "Marshal Vörwarts" as adviser and balance wheel. Prince Blücher was in his seventy-third year, and had been badly bruised and shaken on the evening of the 16th, when his horse was killed under him during a charge of cavalry led by the old huzzar himself.

Nothing could be done without the approval of Gneisenau.

Col. Sir Henry Hardinge (Ropes calls him general, Wellington speaks of him as colonel) the military attaché at Prussian

headquarters "records that Blücher burst into his room (at Mellery, night of June 16th and 17th) triumphantly announcing, "Gneisenau has given way. We are to march to join Wellington." Not very rapidly, however. Gneisenau threw many obstacles and impediments in the way before falling on Napoleon's right flank on the 18th.

Although Napoleon knew that Blücher had gone to Wavre, and that Grouchy with his 33,000 men could effect nothing against him, he failed to send definite orders for Grouchy to join him on the Brussels road.

He assumed that this untried marshal would do the right thing at the right time, notwithstanding the recent example of mismanagement by the celebrated Ney.

Ropes quotes Marbot's "testimony" to the fact that Napoleon expected Grouchy at the bridge at Moustier (over the Dyle River).

Marbot never gave any testimony. He wrote his memoirs for the perusal of his children (?), and like other memoir writers, and tellers of war stories, the relation is somewhat arranged to suit the exigencies at the time of telling.

One cannot help suspecting Marbot of being the prototype of Charley O'Malley the Irish dragon.

On the 18th, instead of attacking the enemy at nine o'clock in the morning, the Emperor held a review.

The army was formed in three lines, the bands played, the men shouted "*Vive l'empereur*" and then stacked arms.

Blücher was at Wavre and presumably on his way to join Wellington. It was imperative that the Duke should be attacked and beaten before the junction could be effected. The rain ceased at eight A. M., or before. The attack was not made until after eleven o'clock.

It is alleged this delay was on account of the ground being too wet for the artillery.

Rose relates that after breakfast, (at the Caillou house) Soult wished the Emperor to recall some of Grouchy's force. Napoleon replied: "Because you have been beaten by Wellington you think him a great general. I tell you that Wellington is a bad general, the English are bad troops, and this will be the affair of a *déjeuner*." Reille afterward came in, and finding how confident the Emperor was, on going out mentioned it to d'Erlon, who advised his colleague to return

and caution him: "What is the use," rejoined Reille, "he would not listen to us."

The first shots were fired on the 18th at eleven-thirty A. M. to cover an assault on the Château Hougomont by Jerome's division of Reille's corps. Had the attack been made with a few guns, the walls and doors would have been demolished and open to an attack by infantry. Reille's corps did little else that day than expend its energies futilely on Hougomont.

After pounding the enemy's center for an hour and a half with seventy-eight guns at less than 600 yards, d'Erlon was ordered forward at one-thirty P. M.

The attack was made in four columns, in column of battalions formed in three ranks five paces between battalions.

This formation was held by contemporary critics to be extraordinary, unusual and ill suited for the work to be done.

A column generally in use at that day consisted of a battalion in line in the center flanked by battalions in column of divisions (two companies?), which could promptly form square—a frequent formation in the days of flintlocks and cavalry charges.

"Why Ney and d'Erlon should have departed from the usual practice on this occasion, no one knows". (Charras)

When d'Erlon charged he received the fire from the brigades of Kempt and Pack at short range. Owing to the formation of the columns, only the leading battalions could return the fire. Ponsonby charged with his heavy cavalry throwing the French into confusion.

The attack on La Haye Sainte was like the attack on Hougomont; with an abundance of heavy guns none were used to batter the doors and walls.

More than 2000 men were lost in getting possession of La Haye Sainte.

By this time (four o'clock) the advance of Bülow's corps could be seen at St. Lambert and occupied the attention of the Emperor. The battle against Wellington was left to Marshal Ney. Ney determined to carry the English center with cavalry. He was originally an officer of cavalry, and perhaps overrated the capability of this arm.

The cavalry did not break an allied square, but the allied troops were obliged to remain in squares, and presented an easy mark to the French skirmishers and to the artillery when the

cavalry retired down the slope to reform, which was done several times between four and six o'clock.

The relative strength of Napoleon and Wellington was the same.

If Napoleon had fought in the morning and had recalled Grouchy, he had a good chance to win the battle.

The arrival of the Prussians soon ended the combat, and the word "Waterloo" has ever since been the synonym for total defeat.

General Gourgaud was Napoleon's amanuensis when writing the "Memoirs." He told Basil Jackson at St. Helena that he could not finish the battle of Waterloo "as Napoleon could never decide on the best way of ending that great battle; that he (Gourgaud), had suggested no less than six different ways, but none were satisfactory."

Gourgaud's journal shows that Napoleon blamed in turn Ney, Grouchy, Vandamme, and Soult; but he ends, "It was a fatality, for in spite of all, I should have won that battle."

TROOPS ENGAGED AT WATERLOO.*

	Infantry		Cavalry		Artillery	Total	Guns	Lost
English.....	15,181	+	5,843	+	2,967	= 23,991	78	11,678
German Legion	3,304	+	1,991	+	526	= 5,821	18	} 3,178
Hanover.....	10,258	+	467	+	465	= 11,190	12	
Brunswick.....	4,586	+	866	+	510	= 5,962	16	687
Nassau.....	2,880	+	0		0	= 2,880	0	643
Belgians.....	13,402	+	3,205	+	1,117	= 17,724	32	0
	49,611	+	12,372	+	5,585	= 67,568	154	16,186
Prussians.....				About,		90,000	..	6,999
								23,185
French.....	48,950	+	15,765	+	7,232	= 71,947	246	30,000

*From Greig's Life of the Duke of Wellington.

HOW TO MAKE RIFLE PRACTICE A SUCCESS.

BY CAPTAIN HERSCHEL TUPES, FIRST INFANTRY.



THE physical qualifications that a man must have to be able to enter the service are a sufficient guarantee that, if not already a good shot, he will become one if given the opportunity for practice and the proper kind of instruction. Any impression that a good shot is born, not made, is wrong. Every soldier should be encouraged to believe that he has the making of a good shot in him, but at the same time he must be given to understand that he cannot expect to become one without exercising patience and performing a greater or less amount of preliminary work.

This preliminary work includes learning the correct principles of aiming and sighting, the position for firing, method of breathing, the use of gun sling and the method of pulling trigger; also gallery practice and firing at miniature targets with service charges.

The peep-sight should be taught the recruit first and the use of the notch or open sight explained to him afterward. Every recruit should be required to use the peep-sight habitually, unless his vision proves so defective as to prevent it, and the same applies to all old soldiers who have never qualified higher than marksman while using the open sight. Any man who has learned to shoot well with the open sight should not be interfered with; at the same time he should be prevented from attempting to influence recruits to adopt and use it. The length of time it takes to learn to do accurate shooting with the open sight is longer than the average soldier stays in the service. Use the peep-sight habitually in the position and aiming drills, gallery practice and the practice at miniature targets with service charges.

The prone position for firing should first be taught the recruit, then the kneeling and sitting positions, and lastly the standing, and the same order should be used in gallery practice. The prone position is the easiest assumed; in it the shot gets good results at once and therefore quickly acquires confidence in his ability to shoot, which is of the greatest

importance for the beginner. One must remember that not only do the drill regulations prescribe the prone position as the one to be habitually used in combat, but in actual range practice over two-thirds of the shots fired in the marksman's and sharpshooter's courses and in the expert test are fired from the prone position. The soldier should be taught early to regard it as the habitual firing position.

We then teach him the kneeling and sitting positions as being the next most difficult to learn.

The standing position is taught last as it is the most difficult one of all and is also the least important. But one-fifth of all the shots in the marksman's course are fired off-hand, none in the sharpshooter's course, and less than one-sixth in the expert test.

In all the firing positions the shot should be taught to hold his breath, while in the act of aiming, with but little or no air in his lungs than what he inhales in ordinary breathing. The reason for holding the breath is apparent. The lungs should not be fully expanded as the muscles of the chest are thereby rendered rigid and the pulsation of the arteries cause an unsteadiness of the piece while holding it tightly pressed against the shoulder.

The proper use of the gun sling should be taught the recruit in the preliminary instruction period.

The correct method of pulling trigger is thoroughly explained in the translation published in the *JOURNAL OF THE MILITARY SERVICE INSTITUTION* for November, 1905, entitled "The Individual Instruction of the Shot and the Education of the Nervous System," and should be followed from the beginning of the trigger-pull exercise.

Try the trigger pull of every rifle in the company previous to the preliminary instruction period. Those which have an uneven or "ragged" pull should be remedied by a competent artificer or gunsmith.

Adopt arbitrary qualifying scores for both slow and rapid fire in gallery practice and give those who fail to qualify additional position and aiming drills until they can qualify.

Following gallery practice, all those men who have never had range practice should be required to fire a few rounds with service charges at miniature targets, following strictly the method laid down in the article mentioned above, firing at

target X, first in the prone position and then in the kneeling and sitting positions before firing off hand at that target.

In firing at miniature targets any old, tarnished or loose ammunition should be used.

In spite of all precautions to prevent flinching there will probably be a few men in every company who will continue to flinch at this stage. Patience and methodical instruction will be necessary to overcome it. Some of the worst cases of flinching are found among athletes, but one rarely sees a gymnast flinch. Gymnastic training naturally develops a better control of the nervous system while an athletic training does not necessarily do so. It is found that a man who is good in gymnasium work soon develops into a good shot also. Systematic gymnastic training is a most valuable preliminary to rifle practice.

The preliminary work should be completed just before going upon the range, and if it has been properly conducted, every man should have learned the proper firing positions, the proper use of the gun sling, how to aim and to pull trigger correctly and will have overcome any tendency to flinch. During the company range practice is not the time to attempt to teach any of these rudiments of shooting.

In general, it should be the object of officers conducting rifle practice to surround the new shot with as many conditions favorable to accurate shooting as possible, and at the same time to eliminate the unfavorable features that may tend to lower his scores and discourage him. If a man qualifies as marksman or better in his second season's practice while shooting under favorable conditions he will probably maintain his grade the third season even if he has to fire under unfavorable conditions; but, if no particular attempt is ever made to promote his shooting, the odds are against his being able to qualify as marksman in a half dozen practice seasons. Every soldier should learn to do accurate shooting under all kinds of unfavorable conditions involving wind, rain and darkness, but before all this can be expected of him he must first be able to shoot accurately with these things eliminated.

Company commanders should have the co-operation of the commanding officer in these efforts. The range practice of a company, to be successful, should be pursued to its completion without any interruption by other garrison duties. Under these conditions three weeks will ordinarily be ample time to

complete the practice of a company. The men on extra and special duty should be temporarily relieved during the practice period of their companies; and commanding officers should also withdraw companies from the rosters for guard and fatigue, which are duties of the first class, during the period to which they are assigned or detailed as entire units for target practice, which is a duty of the second class. The last week or ten days of the season should be set aside exclusively for the practice of those men who were unable to practice with their own organizations. Post commanders should so assign the practice periods that one organization will not have any material advantage in time over another. The time allotted an organization should be proportional to the strength present available for practice. Only as thus regulated will every company have the opportunity to get its best results.

Sobriety is a very important factor in promoting the success of individual practice.

Ammunition should be apportioned so that the new shot will fire from a particular box throughout the practice. If any men have to change ammunition they should be the experienced shots.

Have the artificer make benches, from any material available, to accommodate all the men who may be on the range at any one time. They are easily carried from one firing point to another and the men will not have to sit or lie on the ground or stand about while waiting their turn to shoot.

Do not detail non-commissioned officers who are good shots as markers or scorers, but keep them at the firing points as coaches.

Require every man to keep an individual record of his shooting throughout his practice. This serves primarily to keep his mind on his shooting and he more readily learns how to vary the elevations and the windage of the rear sight at every range according to the various changes in the light, wind and atmospheric conditions. He finds the zero of the wind gauge by noting where it has to be placed when the piece is fired by himself, in order to make a bull's-eye or a close line shot while holding at six o'clock and firing when there is no wind.

At the end of instruction practice, rapid fire, marksman's course, take the data thus obtained, as far as pertains to the zero of the windage and to the elevations, and concentrate it for every rifle in convenient form for individual reference, esti-

inating the corresponding elevations for each intermediate range in skirmishing. It will be found that the elevations for the several ranges will usually vary more or less from the corresponding graduations on the sight leaf. In order that every man might be assisted in familiarizing himself with the proper elevations some officers have placed the necessary data on an ordinary shipping tag and then tied this tag to the gun-sling swivel where the man could readily see it in firing, and they obtained good results. Without considering the propriety of doing this in record practice in the marksman's and sharpshooter's courses, it must be remembered that no man can have such a thing attached to his rifle while taking the expert test.

As a preliminary for skirmishing it will be well to run the inexperienced shots down the range a few times simulating a regular skirmish run in everything except the actual leadings and firings. The ordinary shot can get best results in skirmishing by firing the first ten shots at the kneeling figure and the last ten at the prone.

In instruction practice when it is found that a man has made poor runs and is confused and uncertain of the cause, it will be well, as additional instruction practice only, to have him fire at the silhouettes arranged as follows:

Paste two B targets on their frames with the face of the target against the cloth. On one of these paste the kneeling silhouette with the lower edge flush with and in the middle of the lower edge of the target; place the prone silhouette similarly on the other target. Place a non-commissioned officer and two privates in the pit to mark and manipulate these targets similarly as in slow and rapid fire and instruct them to promptly mark a hit on the silhouette with the white disk, a miss within the frame with a red disk, or the proper flag for a miss off the target, immediately after each shot is fired at the first four ranges, and in firings at the 200 and 300 yard ranges to mark the shots in a similar manner and in the order in which the hits were made, after the fast shot is fired. Target to be lowered and pasted immediately after the last shot is signaled at each range and the desired target then properly exposed for the firing at the next range. There is nothing in this method of marking shots or of shifting targets to prevent the run being conducted in the prescribed way and the skirmisher recognizes the cause of his errors at once. Limited to instruction practice,

as above mentioned, the Chief of Staff has decided that this method is allowable under the Small Arms Firing Regulations, 1904.

Upon completing the prescribed instruction practice, marksman's course, go over the scoring sheets for each class of fire and note the men who failed to average marksman's scores in them at the various ranges. "Marksman's scores" are the several minimum scores aggregating 300, any of which an inexperienced shot can make and still have reasonable expectations of qualifying as marksman and are as follows: at 200 yards, slow fire or rapid fire, 17; at 300 yards, slow or rapid fire, 18; at 500 yards, slow fire, 19; at 600 yards, slow fire, 16; a skirmish run, 45. Wherever a man's average falls below these scores it indicates the need of additional instruction practice at that point or class of fire, and the apportionment of extra ammunition for additional instruction practice should be made accordingly, the attempt being, in this course, to make every man a marksman. The statement which is often heard on the range that "15 is marksman's score" is an erroneous and misleading one for it causes the new and unthinking shot to be satisfied with scores which will leave him with more than he can make up for in skirmish firing.

In record practice the officer conducting a company's practice should devote himself to personally seeing that the requirements of the regulations regarding firing, marking, signaling and scoring are strictly complied with, and should he be the only officer with his company he will have but little time for coaching. In fact, there will be but slight need for coaching at this stage if all the preliminary work has been thorough. He should attach the greatest importance to being able to state that he *knows* all of the requirements of the regulations were complied with for every individual.

When a large proportion of the company qualify as marksmen it will probably be found that the number of C targets on hand are not sufficient to properly accommodate all the men firing in the sharpshooter's course. The deficiency can be remedied by fastening C target frames to the front carriages of B sliding targets and lashing counterweights to the rear carriages so that they can be raised and lowered freely. The C target frames are prepared by fastening two pieces of scantling vertically against the back of the target and far enough

apart so that the lower ends will, when properly dressed down, fit into the sockets of the front carriage.

After completing the prescribed instruction practice in the sharpshooter's course, additional instruction practice should be given to every man who made scores aggregating less than 100; average scores of less than 17 at 800 yards, 16 at 1000 yards and 17 at 500 yards determining the particular ranges at which additional practice should be given.

The men not qualifying as marksmen, but who are to participate in collective fire, should be required to fire a sufficient number of rounds at 800 and 1000 yards during instruction practice, sharpshooter's course, to determine the proper elevation of their rear sights at these ranges. Unless this is done, as high a collective figure of merit as is possible cannot be made by the organization.

All the data regarding elevations and windage which are obtained for each rifle during the range practice should be kept for reference during the next season's practice.

A range telephone system in good working order is essential to satisfactory target-practice.

Although not required to be done by the regulations, an officer should, if possible, be in the pit during the firings in all record practice and there supervise the work of the target details. This should ordinarily insure the proper enforcement of the pit regulations; but an additional precaution affording an opportunity for this officer to positively identify shots, following inquiry from the firing point or for other purpose, would consist in requiring the non-commissioned officer in charge of the marking at each target to personally number every shot hole with a colored pencil—consecutively in slow fire, and with the consecutive number of its score in rapid fire—after the shot hole is pasted. The best way to prevent improper marking is to not allow the opportunity for it.

HONESTY.

At the beginning of range practice assemble all the non-commissioned officers and explain to them the method of marking, signaling and scoring, etc. On the same occasion they should be warned that nothing of a questionable nature must be allowed to enter the practice; that their integrity will probably be placed on trial more than once and that it must not fail them. Show them also that honesty is best from the mere

standpoint of expediency, for dishonest marking will probably confuse the man who is firing and is likely to bewilder any man who is able to "call his shot" and result in finally impairing his score. If one or two men make high grades by being scored up there will be a dozen others who will soon know of it and nothing kills their incentive to obtain a badge or a pin themselves so quickly as the knowledge that other men are wearing them who do not deserve them.

But enlisted men will not always maintain the proper standard in this respect if the officers are indifferent, lax or careless. They are prone to take advantage of a situation left open by the officer who "knows nothing he does not see."

Scorers should deliver the scoring sheets to the company commander, who should keep them in his possession until entered on the individual records.

What is said of individual integrity applies to organizations also. Nothing kills wholesome competition quicker than the certain knowledge that some organizations are practicing petty evasions of the spirit, if not the letter, of the regulations.

It is primarily the duty of commanding officers to see that the spirit of the regulations is carried out. In record-skirmish practice, for example, company commanders should indicate opposite the name of every man in a run his aggregate score up to that run and the commanding officer should scrutinize these lists before the run is made, or as soon afterward as possible. He should require a special explanation for every case where two or more men are grouped together whose aggregate scores differ materially previous to that run, and should the comparative results of the run for these men be incompatible with their known abilities as range shots there should be no hesitancy, when they are so grouped, in throwing out the scores.

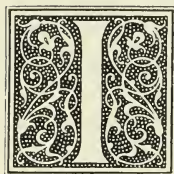
If every individual were properly encouraged to put forth his best efforts in preliminary work as well as in range firing, if company officers would, for two months each year, take half the interest in the details of target practice that they take in close order drill, and if they had the proper co-operation of their commanding officers, there is no reason why the general figure of merit of every company in the service having access to a good range should not be raised to 100 or better; and the soldier would have four chances in five of qualifying above first class before the expiration of his first enlistment.

While it is highly desirable that a general interest in shooting be re-awakened throughout the service, precautions should be taken against it being carried too far. A mistake was made in this matter several years ago. There was practically an unlimited allowance of ammunition for target-practice. Shooting became a leading topic in the service. An unwholesome spirit of competition arose, expenditures of ammunition became enormous and local scandals developed. Then the ammunition allowance was cut to the barest minimum and the inevitable reaction set in from which it has taken over a dozen years to recover.



THE ADMINISTRATION OF A TROOP OF CAVALRY IN THE NATIONAL GUARD.*

BY CAPTAIN HERBERT BARRY, SQUADRON A,
NATIONAL GUARD, S. N. Y.



N responding to the invitation of the presiding officer to address this meeting on the subject of the Administration of a Troop of Cavalry of the National Guard, I assume that what is desired is a reference to experience rather than an exposition of theories; and in this view will endeavor to describe how the affairs of the three troops of Squadron A, and particularly Troop Three, of which I have the honor of being the commanding officer, are administered.

Kipling, whose theme, like that of the great Latin poet, is arms and the men who bear them, has pithily expressed the fundamental qualification of individual cavalymen, in that stern arraignment of his countrymen, in which he says:

Ye fawn on the younger nations
For the men who can ride and shoot.

It is of first importance to mold the raw material into men who can ride and shoot, but for the successful handling of units, both as recruits and as soldiers, organization is essential. An army cannot be maneuvered, transported or fed except as a combination of organizations in co-ordination and co-operation.

Similarly a troop cannot operate as a mere aggregation of individuals, but these must be organized, and the organization carefully administered, or the result is a mob and hopeless inefficiency.

The conditions under which the citizen soldiery of the National Guard perform their duties involve serious limitations upon the training which is possible in the matters of administration; but the effort will here be made to describe briefly what is done under these conditions and limitations.

In the first place, it may be said that the responsibilities of a cavalry commander are greater than those of an in-

*Paper read at the annual meeting of the National Guard Association of New York.

fantry officer in like position; the infantry officer has men, uniforms, equipments and rifles in his charge; the cavalry officer has all of these and likewise horses, horse equipments and additional arms. Furthermore the cavalryman must be drilled and trained in the same matters as the infantryman, but his training also includes the care and management of his horse and mounted drill.

The position in which Squadron A stands is perhaps different from that of any other organization. Originally organized as a single troop, to which the members were admitted only after election by the body, it has grown into a squadron of three troops, but candidates for membership are elected into the squadron, not into a troop. Upon enlistment the recruit is assigned to a troop and thereafter becomes identified with that organization.

Each member contributes as dues to the squadron (not the troop) fifty dollars annually, and the squadron provides him with his mount upon all drills and parades. If he supplies his own horse he is credited at a fixed rate for each drill and parade on which it is ridden.

In the matter of administration the commanding officer of the squadron has practically plenary powers. He consults with the line and staff-officers of the squadron at monthly meetings, but his word is final upon substantially all matters pertaining to administration and to the disbursement of squadron funds. The armory and its employees are under his direction, and as an incident to this, all arms, equipments and uniforms are cared for by paid employees.

It results that the troop commander, except when ordered out for field-service, has little to do in reference to property issued to him, and for which he is responsible. The burden of this responsibility is therefore felt more severely when the troop is ordered out for service in the field, at which time what was before theoretical becomes a practical responsibility.

Questions of commissariat and of transportation, including the providing of horses, are cared for by the squadron commander, and except as to the subject first mentioned, rarely devolve upon the troop commanders.

With all of these limitations, however, the commander of a troop of cavalry in Squadron A may find ample opportunity to

occupy himself in the development of his troop and the maintenance of its efficiency.

The drill season extends from October 1st to April 30th, during which period his troop drills regularly once each week. In addition to this there are special parades and reviews in which all participate, and still further duties fall upon the officers and non-commissioned officers. After the drill season the rifle range at Creedmoor opens, and during six months there is opportunity for very necessary and very beneficial work to be done.

The recruits of all the troops after election, and irrespective of enlistment, are placed in a recruit squad—the term “Awkward Squad” is not used; nor, it may be added, is the term “Recruiting Committee” used, the more appropriate term of “Committee on Admissions” having supplanted it. In this recruit squad the men are drilled under the supervision of an officer and of several non-commissioned officers detailed from the several troops, until the recruit is pronounced by the officer in charge as sufficiently proficient to take part in the drill of the troop to which he has been assigned. The troop commander, therefore, has no occasion to make his drill a kindergarten, nor does he do so. During the first two months of the drill season half of the time on each drill night is devoted to dismounted drill, including the manual of arms and extended order. The remainder of the time during this period is devoted to mounted drill without saddles and with watering bridle only. The drill is from 8.30 to 10.30 P. M., so that at least an hour’s mounted drill is had. After the second month, the entire two hours is given to mounted drill, saddles and curb bridles still being dispensed with; and during these three months the troopers are required, not merely to ride, but to go through mounted exercises that demand agility, fearlessness and horsemanship. If any trooper finds himself in any way lacking in these qualifications, he must acquire them or he must find more congenial pursuits. In the drill it is assumed that the men are past the elementary stage and that it is not necessary to explain to any man an order when it is given; it is also assumed that a man is able to take care of himself and his horse and does not need assistance in either respect. If his horse should become unruly, or if his saddle should slip, he must not expect help from another trooper.

In the recruit squad it is considered desirable that the as-

pirant for martial glory shall fall from his horse early and often. Until he has fallen, he dreads the operation as fraught with danger to life and limb. Tan bark is soft and no process will eliminate his erroneous impression so speedily and effectually as the practical and personal demonstration of the effect of actual contact.

Any man of good physique can ordinarily be made a fair rider. This does not mean that he can be made an accomplished horseman, for good "hands" are rarely found in the case of a man who begins his riding after reaching maturity, but he can be given a firm seat and made a good, practical cavalryman.

The reins are mentioned in the drill book as "aids in horsemanship." This does *not* mean support to prevent the rider falling off. Better by far fall off than thus stay on.

To insure the troopers riding with a firm seat and without any aid from the reins as a source of support, they are required, among other things, to ride with their arms folded, the horse being led by another man, and also to jump a hurdle in this position. The latter exercise is one which we practice constantly, and the more so from the instructive results that followed the experiment of its introduction. On that occasion the members of the troop had been jumping the hurdle and performing other exercises with apparent ease and confidence, but it seemed to the writer that the horses were not given their heads at the jump, and so the men were directed to go over the hurdle in column of troopers, dropping the reins at the hurdle. The result was that nearly half of the men likewise dropped, confirming the suspicion as to the previous improper use of the reins. Perhaps in no other way could the individual men have been so cogently instructed upon this point, and the point of the instruction so promptly and forcibly impressed. As a result, each man set about correcting his shortcomings, and in the next drill little more than 10 per cent. of the men parted company with their mounts at the jump. A week later the whole command passed over safely. Since that time, although it is a regular feature of the drill, it is a rare occasion that a man loses his seat, even though the horses at times may plunge or kick after passing the hurdle. Another exercise which tests the firmness of the trooper's seat and his command of the horse consists in executing a figure eight at the gallop. In this each trooper in turn is required to ride out separately at the gallop,

and to describe a figure eight, thus making the horse change from left foot to right, and *vice versa*, within a short space. To accomplish this purpose the trooper must be able not only to use the reins and legs as aids in the manner prescribed by the drill book, but he must be able to throw his weight from side to side, as additional aids in guiding horse, and without saddle and stirrups this requires a firm and secure seat. I think it may be said that a trooper who can satisfactorily put a horse through this exercise and also can jump the hurdle with the arms folded is sufficiently proficient as a horseman for any ordinary drill.

Of course these exercises are only examples. For instance, our men must be able, and are required to dismount, and vault on a horse as it jumps the hurdle; they must be able to ride over the hurdle facing the rear, and they must be able to perform a variety of other athletic exercises.

The constant practice of these exercises, in addition to the ordinary movements of troop drill during the first three months of the drill season, have the practical effect of giving the trooper a firm seat, developing his "hands," and making him a good, practical rider for cavalry purposes. Following this, the drill with equipment is taken up, of which but little need be said. The aim is, of course, to obtain the highest degree of accuracy and precision in all movements of the drill, with and without arms.

During the drill season the men are also required to practice carbine and pistol shooting in the armory range, which is, however, quite inadequate for the purpose, having been constructed for one troop, and affording, therefore, only one-third of the proper facilities. Nevertheless, much valuable instruction and practice is had there, and also with a sub-caliber gun, which has recently been installed. The shooting is done by squads under the charge of their respective corporals, and also by individual effort on nights other than those on which the respective troops drill; by competition and prizes incentives are offered for special efforts, and good results have been obtained, which are more fully shown in the subsequent work at Creedmoor. Of course, schools for non-commissioned officers must also be conducted by the troop commander during the drill season, but space forbids further mention of these.

After the drill season the squadron goes to Creedmoor, and substantially all of the men qualify as marksmen on that day. This result was not accomplished in former years, but by per-

sistent effort the standard of efficiency has been steadily raised until the results that are now arrived at compare favorably with those of any organization. This is largely due to the persistent work that follows during the season of the supplementary practice, the efforts of one year bearing fruit in the results achieved in the year following.

Good-natured rivalry between the troops has prevailed, and to this is in part due the marked improvement that is shown year by year. As illustrating this improvement a comparison of the records for five years past shows the following:

The number of men in the Squadron qualifying as experts was—

In 1901	4
" 1902	20
" 1903.....	41
" 1904.....	53
" 1905.....	82

Of these eighty-two, Troop Three, with a total membership of seventy-five, contributed thirty-five, being $46\frac{2}{3}$ per cent. of its strength.

As further showing the improvement where interest is stimulated, and what persistent effort will do, it may be added that since the institution three years ago of a prize for the highest figure of merit for organizations attached to headquarters this prize has been taken by Troop Three of Squadron A with the following percentages:

1903.....	61	10/100
1904.....	63	80/100
1905.....	66	99/100

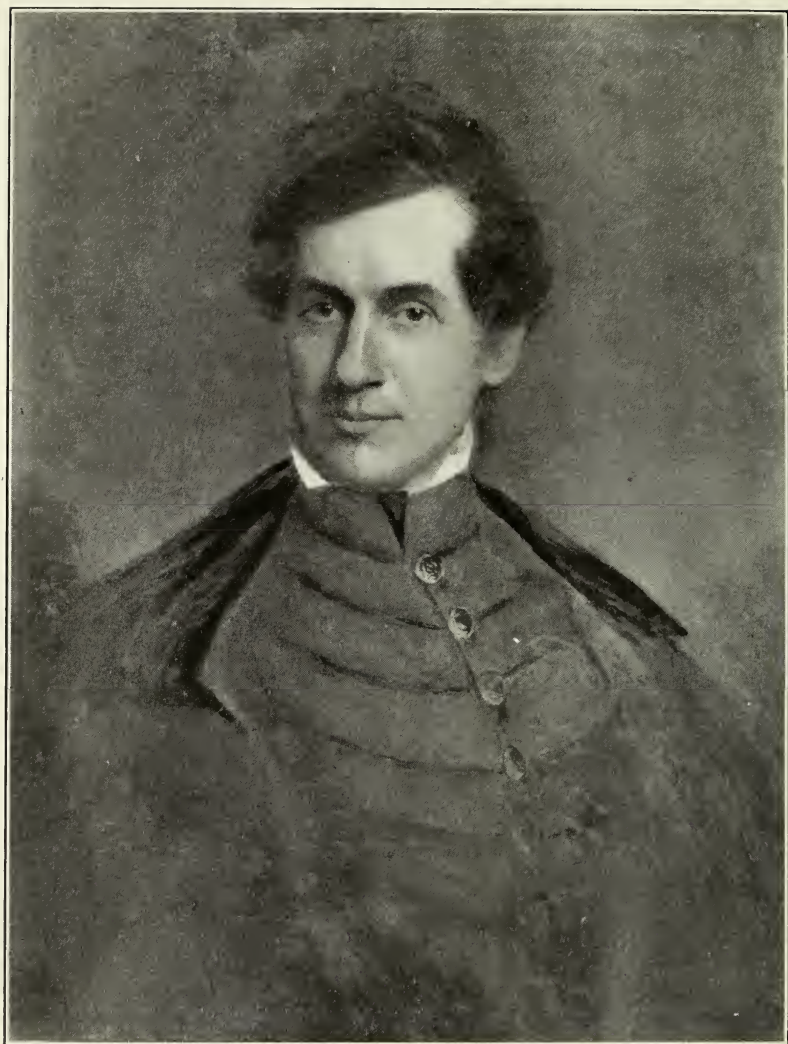
And now a word as to the stimulating of this interest. It is not due to auto-suggestion; it must be the subject of constant exhortation and encouragement, and in no capacity is subaltern officer or non-commissioned officer of greater aid to the troop commander. It has been the practice of the writer to assign a sergeant to the care of the shooting both in the armory and at Creedmoor. There is no provision or title for such an official, and so a duty sergeant is assigned. This sergeant keeps a roster of the troop and a record of all the scores made both in the armory and at Creedmoor during the entire year. He pursues any laggards; and to quote again from Kipling, "He works them, works them, works them till he feels them

take the bit." For such a sergeant may a troop commander be devoutly grateful.

This fittingly introduces the subject of "the backbone of the army." It is, of course, possible for a captain to take an unorganized body of men and from them develop lieutenants, sergeants and corporals, as well as private troopers; our revered guide and exemplar, Major-General Roe, performed this feat, but undoubtedly the ideal condition of a troop, from the standpoint of its commanding officer, is to have all of the work done by his lieutenants and non-commissioned officers, leaving himself to bask in the glory of their triumphant achievements. The triumvirate of sergeants upon whom the troop commander leans is like a three-legged stool. If all are effective he can sit secure; if one fails him there is trouble sure and plenty.

Of the importance of the first sergeant, and the large share that he occupies in promoting the captain's peace of mind, nothing need be said. The quartermaster-sergeant, to whom the captain looks for the care of the property as to which he is responsible, is somewhat of a free lance so far as drill work is concerned, but if he fulfills his own special functions, the captain can well afford to give him and his assistants, the artificers, much leeway. When the troop leaves the armory upon field duty, the duties of the quartermaster-sergeant and his artificers as to the wagon, the forage and the horses demand competence and energy. The commissary-sergeant is a potential factor in the armory but a most active one in the field, and he has little opportunity for practical preparation; but the work done on marches and camp service has been most creditable.

Of course the other sergeants and corporals are most important factors in the efficiency of a troop. In fact, it is by the development of the spirit of responsibility on the part of the sergeants and corporals, and by holding the corporal accountable for the condition and performance of the men in his squad, that the best results have been achieved. The chevrons are a prize which is eagerly sought, and which, when gained, demands unremitting attention, effort and tact. The selection of non-commissioned officers and the keeping of them to a high standard is the finally determining factor in the efficiency of the command.



JOHN FARLEY,
Lieutenant, First Artillery, U. S. A.

LETTERS FROM EUROPE, 1828-9.

FROM THE UNPUBLISHED MEMOIRS OF THE LATE LIEUT. JOHN FARLEY, FIRST ARTILLERY, UNITED STATES ARMY.*



HERE has, recently, come into the possession of an army officer†, letters of his father, formerly an officer of the United States Army, written from Europe in 1828-29, which had been hidden away in an old chest for more than three-quarters of a century.

He was a lieutenant at the time (a few years after graduating from West Point) and while on furlough was instructed by the War Department to observe while in Paris the best system for military maps and lithographic drawings, with a view of introducing the methods employed abroad into the bureaus of our military departments.

When in Paris Lieutenant Fessenden and himself were invited by General Lafayette to the general's château at "La Grange," where they were the recipients of the generous hospitality which Lafayette was so fond of showing to Americans, and more particularly to those in our military and naval services. From one of the letters it would appear that while in Paris this officer was requested to make the design for the vase presented to General Lafayette by the midshipmen of the frigate *Brandywine*, which conveyed the general to France in 1826, when returning from his last visit to the United States.

From the last descriptive paper, which is worn and yellowed by age, it is inferred that the letters from Europe were addressed to his young friend, John H. Latrobe, who had been a comrade of the young officer at West Point and a chum of his in college.

These young men are known to have had unusual talent with the brush and pencil; the one being a son of the archi-

* *Military History*.—Cadet at the Military Academy, June 24, 1819, to July 1, 1823, when he was graduated and promoted in the army to Brevet Second Lieutenant, Second Artillery, July 1, 1823; Second Lieutenant, First Artillery, July 1, 1823. Served: on Topographical duty, Aug. 21, 1823, to May 21, 1828; on leave of absence in Europe, 1828-29; on Ordnance duty, May 1, to Aug. 6, 1829; on Engineer duty, Aug. 6, 1829, to Dec. 1, 1832; in garrison (First Lieutenant First Artillery, Aug. 1, 1832), at Charleston harbor, S. C., 1832-34, during South Carolina's threatened nullification,—and at Fort Monroe, Va., 1834-35; and in Florida, 1835. Resigned, Feb. 29, 1836. *Civil History*.—Assistant in the Geodetic Survey of the Atlantic Coast of the United States, April 1, 1837, to July 31, 1874. Died, July 31, 1874, at Narragansett Pier, R. I. Aged 71. At his death he was the oldest assistant on the work and his chief announced "Through all climates of our extended coast, without remitting for private wants, Mr. Farley was ever ready to perform carefully and faithfully, any duty to which he might be called, and the archives of the Survey have been enriched by his labor and his skill."

†Brig.-Gen. J. P. FARLEY, U. S. A. (retired).

tect of the Capitol building in Washington City, and the other an instructor of junior cadets in drawing at the Military Academy while he himself was still a cadet, and the furlough granted him in 1828, for one year, was with the view of his qualifying as a candidate for the Professorship in the Department of Drawing at the Academy. These facts are mentioned for the reason for that one so young, and it must be said, inexperienced, his criticism of art when in Europe may be judged as decidedly bold, and if we consider the period of his writing, well in accord with present-day opinions.

When starting on the packet ship *Shenandoah* off Cape Henry, Va., the first letter to his friend is dated July 1, 1828, and here he says:

I.

ON BOARD THE *Shenandoah*, OFF CAPE HENRY, VA.

July 1, 1828.

The pilot is about leaving us, and I cannot omit the opportunity of sending you a few lines previous to my departure. To-morrow will place many leagues between me and my native shores, which I cannot leave without feelings of regret, only ameliorated by the consolation that I may ere long revisit them. * * *

We had a tedious trip of six days from Washington to this place, but the first two or three days were in some measure relieved of their monotony by the novelty of being on ship-board, and the delightful anticipation of being about to realize all my early and cherished expectations.

I hail this as a new and gladsome era of my life, and one which, if properly improved, will eventuate in future profit as well as present pleasure. * * *

On leaving Alexandria we had the promise of a fair wind, and the excitement and bustle attendant on getting under way was truly exhilarating, but since then we have had continual calms. These have been compensated in some measure by the unusual loveliness of the evenings at this season of the year. If you wish to have a specimen of my descriptive powers I will give a moonlight scene on shipboard.

It was on Sunday evening. The sky was serene and cloudless, the air was pure and balmy as it blew faintly from the shore with just force enough to make the flagging sails swing heavily against the mast. The creaking helm seemed to chide our inactivity. The moon was at the full and shone out with unusual resplendence, and, reflected on the calm mirror of the waters, seemed an expanse of molten silver beneath us. Above, the dark masts and spars of the

vessel were thrown in dark shade and showed their well-defined outlines in bold relief upon the pure blue sky. At this time we had dropped down the river as far as the tide would permit, and orders were given by the pilot to come to anchor for the night. This order was cheerfully obeyed, the sailors becoming weary of inaction; and my reveries occasioned by the tranquility of the scene were interrupted by the hoarse mandates of the pilot, the spirited "heave yeo" of the seamen and the discordant rattling of the blocks and rigging. With all the alacrity attendant on marine discipline the sails were soon clue'd up and taken in as if by magic, and as the last lumbering sound of the ponderous cable died away upon the waters, each one repaired to his post. Some, however, collected together in groups to rehearse their adventures or to become better acquainted, having most of them met on this voyage for the first time. The low and suppressed hum of their voices continued for a time, with occasional loud merriment at some happy effort of wit from a jovial comrade, until weariness or inclination inviting repose they betook themselves without choice to the hard planks of the deck or threw themselves on the water casks or capstan for their bed, and enjoyed a slumber more refreshing than I could find in my stateroom.

* * * * *

After leaving the Chesapeake Bay and getting out to sea, I experienced a feeling of solitude and isolation which I cannot well describe. I had seen the last faint outline of the receding coast fade away in the west with the setting sun, and even after the darkness had closed in upon the horizon we could still descry the light-house beacon at its extreme verge, which appeared

"Like a star in the midst of the ocean."

As it gradually receded, and finally disappeared beneath the waves, with every other vestige of our lovely land, I could not help recalling to mind those sentiments which Byron so well expressed in a similar case in his *Childe Harold*.

When I ascended the deck the next morning no traces of land were to be seen, and the sea had assumed that deep azure tint which is so peculiarly remarkable out of soundings, where it is always of a green color. As far as the eye could reach nothing could be seen but an endless succession of billows crested with foam, around which sported innumerable sea-birds following untiringly in our wake, as if to accompany us on our lonely voyage. There was a companionship in their presence and a kind of relief in having some object for the eye to rest upon in this vast waste of waters. The kind of sea-birds commonly known among sailors by the name of *Mother Carey's chickens* are very peculiar in their habits, and passengers, generally for want of other amusement, soon make acquaintance

with them. They follow in the wake of vessels frequently for more than a thousand miles, seeming never to rest or sleep, and subsisting on the refuse food that may chance to fall from the vessel.

The novelty of the open ocean soon wore off; and the days of imprisonment seemed to "drag their slow length along" with most tiresome monotony, and the occasional sight even of a piece of driftwood or a mass of sea-weed had something interesting in it.

An ice island, the spouting of a whale or a school of porpoises were great and remarkable incidents *faute de mieux*, and if, perchance, a sail hove in sight the anxiety became intense to know her name and destination. Day after day presented nearly the same scene. We were going onward and onward with rapidity; but still there was no landmark of reference to show that we gained on our long journey. We were still in the center of succeeding circles whose bounds were in successive horizons. The sun rose and set in the sea again and again, with the same stupid rotation. We seemed excluded from the world—a mere fragment of matter, and yet a little world within our own sphere; or, as Irving says in his "Sketch Book," "Like a fragment of a world we were hastening on to join the general mass of existence."

You may judge of my delight when we entered once more the green waves whose color told us we were on soundings. The lead was thrown and indicated sixty or seventy fathoms. Still we were a great distance from land. Some sand and shells were brought up, and I first hailed from them the soil of old England. It was my original intention to land at Cowes, in the Isle of Wight, thence to have proceeded by the way of Havre to Paris, but as no pilot boats were off that place I was compelled to land at Dover.

On leaving the ship I felt as if I had parted with all that was American, and followed with my eye our flag until it was lost from sight by the projecting cliffs that jut out at this part of the British Channel. These cliffs which, at a distance, appear like an immense wall or fortification extend up the channel a considerable distance, and to the eye, unaccustomed to such scenery, create an optical illusion by which we cannot correctly judge of the magnitude or height of the cliffs except by a near comparison of them with the shipping and buildings in their vicinity, which shrink into comparative insignificance. Being composed of chalk they have a beautiful and white appearance. They are surmounted by the towers and battlements of this well-known Dover Castle, and the town is embosomed in a delightful valley or ravine at their base. The houses are generally built in this valley or around a semi-circular beach, among the surf of which our boat was run ashore.

It was doubtless at this place that the Roman legions effected their landing when they made a descent upon the island, and my fancy was indulged for a moment in conjuring up the disciplined legions and cohorts of Cæsar, whose motto was ever, "*veni, vidi, vici*," and imagining the frowning battlements to be peopled with the barbaric hordes of

ancient Britons. In such fancies and the pleasurable sensations created by first setting foot upon the soil of our ancestors I would willingly have indulged, had they not been interrupted by the matter-of-fact-circumstances of being annoyed by a crowd of lackeys, custom-house officers and porters whose importunity was worthy of a better cause.

I stayed here but one day, during which I had ample opportunity to visit the castle and neighboring cliffs. It was gratifying to meet at my outset that which in my youthful notions and early love of the picturesque seemed most desirable to be seen—an old castle and in ruins! Here was the antique and picturesque, and I thought myself almost compensated at first for the toil of my journey. I promised myself a rich treat in exploring its turrets, cells and covert way, and am happy to say



I was not disappointed. As the packet-boat did not start for Calais until the next day, I took a ramble along a circuitous path in the direction of the castle, which led to the main entrance or gate. Here an old pensioner met me and volunteered to show me the interior. He was decrepit and garrulous, and gave me even more information than I wanted. He hobbled on before as well as the infirmity of age would allow, and at every step rehearsed his oft-repeated story. He was an old veteran who gained a precarious subsistence from the bounty of the curious, and well earned his half-crown fee.

I was pleased with the specimens of Roman, Saxon and Norman architecture which were here confusedly blended together, showing the progressive improvements in ancient warfare in different ages contrasted

with the modern. This fortress, once impregnable before the introduction of firearms, is a demonstration of the total inefficiency of ancient defenses to sustain a modern siege.

What is called defilement or commandment was formerly unknown. and this noble work, which if isolated would still be a stronghold, may be battered without difficulty from the neighboring hills.

It is surprising that no authentic traditions remain and no manuscripts or chronicles of its early history are extant, except those traditions that are full of exaggeration. By some the castle was said to have been built by Julius Cæsar, and others, with more probability, tell us it was built under Claudius Cæsar in the year 43, when Plautus was consul; others say in 49.

The characteristic features or horizontal trace is decidedly Roman. The form of the camp, ditch, parapet and octagonal outworks also indicate Roman work, notwithstanding their high parapets and deep ditches show the innovations of Norman and Saxon engineering.

I passed through the portal of the keep and under a noble archway where the remains of an old portcullis are to be seen. Near this, I was told, was the constable's tower, in which are the old keys and the warden's horn.

The keep is a kind of citadel in the interior of the work, which was erected by order of William the Conqueror after the design of Crundlupt, Bishop of Rochester. Being erected in 1154 it is now 675 years old. The garrison now occupies it as a barrack and magazine, where I had the gratification of seeing a well-disciplined detachment of the Forty-first Regiment just returned from India. The garrison at present is 300 strong.

I could not but witness with regret the demolition which was being made of a part of this venerable antique structure to give way to some modern improvements.

The well, calculated for supplying the garrison in time of siege, is 380 feet deep, the heights being only 300 feet.

Upon the apex of the hill, within the walls, is the most interesting antiquity called the Pharos; the date of its erection is unknown, but I was told by my guide that it was attributed to Julius Cæsar's time. Near this is a ruined church or, perhaps, a temple, from which we have a most extensive view of the British Channel and the adjacent country. The whole fortress is built of silicious rubble interlaid with Roman tiles, which has become as indurated as stone by time, and the walls, which are generally six feet thick, bid fair to withstand the storms of as many ages as have already passed over them. It is mortifying to human pride to contrast these enduring piles with our own ephemeral existence.

The beauty of the prospect can hardly be imagined by an American, whose eye is accustomed to rest on interminable forests, in contemplating the aspect of English landscape. The country, everywhere

cleared up and pruned of trees, presents a continued succession of richly cultivated fields and variegated colors of the ripening grain, grass enclosures, and the well-harrowed soil interspersed with neat and beautiful thatched cottages.

My guide's loquacity marred my enjoyment considerably, and, desiring me to descend by one of the courtways of the parapet to a small battery below, he showed me that celebrated piece of ordnance well known by the name of "Queen Elizabeth's pocket-piece." It was cast in Utrecht in 1544 and presented to the Queen by the States of Holland. It carries a twelve-pound shot about as far as an eighteen-pounder. It was fabled to carry a ball to "Calais green."

This handsome piece has been lately remounted on an elegant brass carriage presented by the Duke of Wellington. On the chase of the piece is an inscription in old Dutch, which, not being able to decipher, I rely on my learned guide for the following translation:

"Over hill, over dale I carry my ball,
And break my way through mound and wall."

II.

PARIS, July 12, 1828.

* * * Since my arrival I have applied myself to the study of lithographic drawing, in pursuance of the instructions and request of the War Department, and I am pleased to be able to send you a specimen of my *First Trial*, which has been very successful. (See p. 498.)

I have already made a report to Colonel Roberdeau on the subject

III.

PARIS, August 25, 1828.

* * * You request me in your last letter to give you a minute account of what transpires from day to day, but I must consider before I should attempt it; however replete these new scenes may be with interest and novelty for me, a description of them may be quite uninteresting to a reader. I have a great aversion to journalizing, and I will for that reason only give you a *cursory* account of the most remarkable objects I have visited.

Nearly every day since my arrival has been pleasantly and profitably occupied. On the first day I alighted from the diligence at the Hotel Montmorenci, where the Americans generally resort; but not finding the accommodations so good as I wished I soon after looked out for more agreeable quarters. I joined some of my countrymen in their mess at No. 2 Rue Vivienne. On the first day the time hung heavily upon my hands, and I sallied out alone to while away the time. I bent my way at random down the Rue Richelieu, and accidentally found myself in the Place Carousel in front of the royal palace of the Tuileries. I was not struck with its appearance at first, and felt more

reverence for the old castle I had left behind me at Dover. On my subsequent visits, however, I became more reconciled to it, and was even pleased with its appearance. It encloses three sides of the square, and is made up of several orders of architecture, according to the fancies of successive reigning monarchs, all combined with tolerable harmony. It was founded by Catherine de Medicis, and completed by Henry IV, Louis XII and Louis XIV. A high iron railing passes through the middle of the square, and in its center stands the



LIEUT. FARLEY'S "FIRST TRIAL."

main gate or triumphal arch, copied from the Arch of Septimius Severus at Rome. The passage through this arch lead to the gardens of the Tuileries beyond the palace. It was with agreeable surprise that I entered these spacious grounds, fatigued as I was with the din and confused bustle of narrow and dirty streets. It appeared as if wealth and art had lavished their stores to embellish this beautiful spot.

Spacious avenues bordered by shrubbery and flowers and lined

with orange-trees and ornamented at intervals by fine groups of statuary, artificial groves and shady walks, green parterres and enclosures, and fountains of refreshing coolness appeared, arranged with the utmost elegance and taste.

Classic and antique statues in marble and in bronze embellished the angles of the walks. Such as the stories of Æneas, the death of Lucretia, the race of Atalanta and Hippome, together with fine copies of the Laocoon, Ariadne, Diana and the Apollo Belvidere. I anticipate much pleasure in being able to renew my visits and viewing these objects at leisure during a stay of several months.*

August 25th.—Visited Montmartre, the place of martyrdom of Saint Denis, defended by the French against the allied troops. Traces of that sanguinary contest yet remain. The hill commands a fine view of the city and its environs.

August 26th.—I attended a fête to-day at Nôtre Dame, at which the king was expected to attend. This church, founded by Saint Denis, the tutelar saint of France, upon the ruins of a temple dedicated to Jupiter, Castor and Pollux in the reign of Tiberius, bore the name of that saint until 552, when it was rebuilt by Childsbert I and dedicated to the Virgin Mary. It is a fine specimen of Gothic architecture and contains several paintings by celebrated masters of the French school.

The sacristy contains some fabled relics for the edification of devotees, such as a piece of the veritable cross and part of the crown of thorns of our Saviour, so we are told. But what is more interesting are the costly regalia of several monarchs, viz.: the splendid coronation robes of Gobelin tapestry worn by Louis XVI, and those of Napoleon, Louis XVIII and Charles X, together with costly vases, crucifixes and other antiques, some of which are coeval with the foundation of the church.

This being, as I observed, a holy day or *jour de fête*, a great deal of unusual ceremony was observed in consequence of the King's attendance. The shops were all closed, the square in front of the church was hung with Gobelin tapestry, the streets for near a mile were lined with double ranks of soldiery and the populace thronged every avenue.

As it was necessary to wait an hour or two before his arrival we had time to observe the ostentation of Catholic worship, and to compare it with our own more humble devotion. It must be confessed that there is something imposing in these ceremonies, combining princely splendor with mystified preparations.

The effect of this scene was strange and novel. On the one hand

* This officer of the U. S. Artillery was under instructions from the War Department to acquaint himself with the best methods of lithographic art and engraving employed in Europe, for the purpose of introducing them in the Topographical Bureau, U. S. A., and the U. S. Coast Survey. The furlough granted him was also to afford him an opportunity to improve his talent in the fine arts.

was seen the archbishop, arrayed in his costly robes and insignia, attended by priest offering up incense to the silver image of the Virgin, while near them, and almost at the foot of the altar, several sentinels were posted. On the other hand were other priests performing on musical instruments in accompaniment to the grand organ, whose deep tones echoed through the lofty Gothic arches and mingled with the military music of a body of soldiers who advanced up the marble pavement of the aisle and formed in files on each side at the word of command.

This, which to us would appear rather an incongruity, was considered quite a matter of course with the Parisians.

IV.

PARIS, *August 27th.*

My next excursion was to Versailles. The King was to have reviewed the troops on this day. Every vehicle was put in requisition. We found the gardens more beautiful, if possible, than those of the Tuileries, on account of their commanding a more extensive prospect of the fertile and picturesque country that surrounds them. They are arranged on the principles of landscape gardening and contain much variety in sculptural ornament. The grounds are diversified with temples, pavilions and statues interspersed among shrubberies, parterres, sheets of water, cascades and *jets d'eaux* in every direction. The most advantageous view is on the lawn or plateau in front of the palace where the grand fountain of the Dragon occupies the foreground with the water walk with all its numerous cascades and elegant groups, and the pyramid and château appearing between the dark woods closed the perspective.

The troops, amounting, as I understood, to about 5000 or 6000 men, were drawn up on parade for inspection, but a heavy shower prevented the appearance of the King, to the disappointment of many thousand spectators. The Swiss Guards were the finest body of troops I have ever seen, and the troops of the King's household also appeared to be composed of the élite of the army, being mostly young men of noble families.

August 28th.—The Louvre and the Luxembourg. The former contains the works of the old masters of all the different schools and the latter is appropriated to the works of living artists. They are collected and arranged in such a judicious manner that one may easily compare their respective merits and find an inexhaustible fund of instruction and amusement. These galleries are constantly crowded with visitors and artists, and amateurs have always access to copy the paintings.

August 29th.—The Garden of Plants. As almost every institution belonging to the public is thrown open to inspection for foreigners by showing their passports, I found no difficulty in visiting

the *Garden des Plants* where the rarest specimens of nature, history, anatomy, botany, etc., are gratuitously exhibited.

No place perhaps in the world affords such facilities for the acquisition and diffusion of knowledge as Paris, for here the humblest individual has access to the fountains of science.

The arrangement of plants, etc., in the Botanical Department is excellent. They are placed in soils and situations congenial to them and are all labeled.

In the Department of Natural History are all kinds of animals from the arctic to the torrid zone, ranging freely in enclosures allotted to them, etc. The menagerie is extremely interesting to the man of science, being well stocked at a great expense and care.

August 30th.—The Royal Observatory. In the garden of the Luxembourg this observatory is situated on that celebrated meridian between Dunkirk and Barcelona, which served to ascertain the size of the earth and establish the present standard of French measures.

Among many fine instruments was a telescope twenty-eight feet long and eighteen inches in diameter. The observatory was erected in 1667 and presents another instance of the munificence of this government in the encouragement of science. During the last year 300,000 francs were expended merely in external embellishments of this building, while our own economical government, with a full treasury, is hesitating to devote a few thousand dollars to the establishment of a similar institution, which is so much needed.

August 30th.—Received an invitation card to the Chamber of Deputies from General Lafayette. He is unwearied in his attentions to our countrymen and his house seems to be their home, so much does he enter into our feelings and interests.

*Genl Lafayette! compliments to Genl Parley and sends him
a ticket for the House of Deputies; to-morrow is the last day; the House
will begin to work; if Genl Parley did not make use of it he might be sorry
of two, friend J.
Friday eve.*

August 31st.—Visited the beautiful cemetery of *Père la Chaise*. Its magnificence is unparalleled by anything of the kind and accords with that of the city. Every species of sepulchral or funereal ornament which the ingenuity of this refined people could devise or wealth could obtain is here to be seen. The most distinguished characters of the two last centuries are buried in this place.

Sept. 1st.—*École des Ponts et Chaussées*. I have obtained permission to visit this institution at my leisure during my stay at

Paris. It contains models in relief of the principal civil works in France, such as bridges, locks, canals, etc., and I find that I shall derive, from their inspection, a great deal of useful information on the subject of Civil Engineering. I have also visited the Conservatory of Arts and Trades, which is an extremely interesting institution, and assimilated to our Patent Office. * * *

*Madame Louis de Lasteyrie, et Monsieur, le
Général La Fayette ont l'honneur de vous faire part
du mariage de M^{lle} Pauline de Lasteyrie leur fille
et petite fille, avec Monsieur Charles de Remusat.*

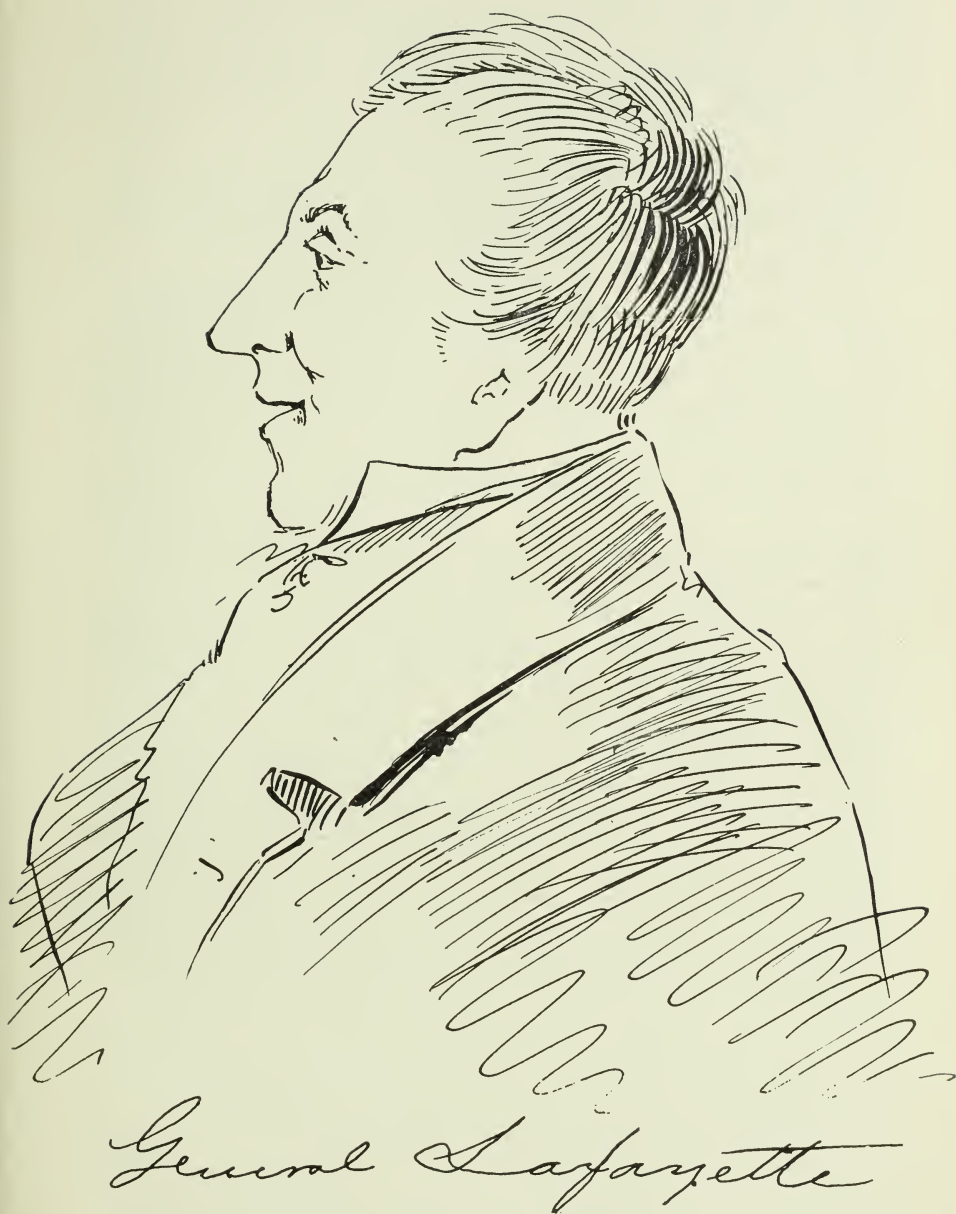
*Et vous prient d'assister à la bénédiction nuptiale
qui leur sera donnée en l'Eglise de l'Assomption le lundi
18 Août, à 10 heures précises. A D^{me}*

V.

PARIS, September 13, 1828.

I have just returned from a visit to General Lafayette, our country's benefactor *par excellence*, as he is called. It was my intention to have delayed this visit until my departure for the south of France, as I would then have passed La Grange on my journey. But Lieutenant Fessenden and I, while attending recently the nuptials of M. Remusat and Mademoiselle Lasteyrie, were given a pressing invitation by the general to go out to the château with the bridal party. This invitation was seconded by Mr. George Washington Lafayette, who called expressly to tell us that his wife and daughters, whom he wished us to meet, were then staying at the château, but would soon return to their residence at Auvergne. We had no inclination to decline such a pleasant excursion, and accordingly took our seats in the diligence the next morning for Rosay, a small town in the neighborhood of the château. The distance from Paris is thirty or forty miles. The road being good and the weather delightful, we accomplished our little journey in a few hours without fatigue.

At Rosay the general's carriage was waiting, and we were soon at the castle. My previous conceptions of the place were not very just.



NOTE.—Pen and ink sketch from life by Lieut. Farley.

I had supposed it was situated on an eminence like most castles of feudal times, but, on the contrary, the country around is unusually level. The consequence is that the distant view of it is scarcely remarkable, and nothing is to be seen but the acute conical roofs of the towers rising above the dark green foliage. We were compensated, however, by a nearer view, for the approach to the main entrance is by an avenue lined on each side by dark hemlocks, which fling their heavy boughs across the path, forming a deep, shady vista, through which is seen the picturesque arch of the northern gate, overgrown with ivy and flanked by the circular towers.

Above the gate and in the towers were a few crenelated loopholes intended for defense formerly, which now perform the less belligerent office of windows. They were nearly obscured by the luxuriant growth of ivy, through which peered the figures of the domestics or the younger members of the family whom curiosity had drawn thither to reconnoiter the newcomers. All this side of the building was in deep shade and the sun, which was just setting, threw his rays obliquely across the courtyard within and relieved out the archway and exterior walls with beautiful effect, and the rich, mellow and golden tinge which was shed over all the conspicuous objects within and above, gave more somber and gloomy shade to the dark hemlocks. I was much prepossessed with the external aspect, and everything within promised domestic comfort and hospitality truly in keeping with its venerated proprietor. Like him, there was something venerable and patriarchal in its appearance as it overlooked the surrounding hamlets of the peasantry, and though war-worn and antiquated and like him a remnant of other times, all was plain and unaffected within.

We drew up in the courtyard and, on alighting, were shown into the general's library, where we received his benovolent greetings and his kindest welcome. He then introduced us to all of the members of his family, which consisted at that time, including his grandchildren and those who were collected together on this bridal occasion, of about sixteen or seventeen persons. It was delightful to see the old gentleman surrounded by his children, all joyous, happy and affectionate as they are, and looking up to him with feelings of pride and exultation in his well-earned fame. He seemed to remind me of the venerable remains of an old oak, which once proudly overtopped the trees of the forest, from whose root the young scions spring up and whose shattered trunk is crowned with the ivy and the laurel.

Among so many young persons, as were there, we were at no loss for amusement, and the Mademoiselles Lasteyrie and the pretty daughters of George Washington Lafayette exerted their charms of conversation and accomplishment to entertain their guests. Of the latter, the drawings of Clementine and the vivacity of Matilda contributed a great deal to our entertainment. Every mode of diversion which they could devise was successfully tried to make our time pass

agreeably, and we beguiled our time alternately between music, paintings, walking and conversation. Among other things we were shown the little room in which the general has collected all the Indian curiosities and presents which have been made to him from time to time, quite a miniature museum, which he takes great pride in showing.

The same may be said of his farmyard or grange, from which the place takes its name. It is a large rectangular enclosure with buildings around it in which he not only keeps his live stock, of cattle, etc., some of which are rare presents, but also his aviary, consisting of beautiful wild and domestic birds.

On the first evening we sallied out to take a walk around the *château* by a road which leads for about two or three miles among the trees and lawn in its vicinity. On the next morning I awoke at an early hour and the novelty of having slept in an old castle being somewhat unusual to me, I determined to explore my romantic position, and, dressing myself, I descended the circular staircase of the tower before any one was astir, and, crossing the moat, emerged upon the open lawn in front of the *château*.

It was about sunrise and the eastern front of the castle appeared in all its beauty. I took a turn down a walk that led to the garden around the outer edge of the moat. It was hemmed by drooping willows, the branches of which hung over the ditch in which they were reflected as in a mirror, with a thin outline relieved by the perfect reflection of the blue sky. The battlements all gave back their inverted image. The morning air was pure and serene, and the surface of the water was perfectly unruffled. The spire of what was formerly an old abbey rose above the trees on the one hand, finely contrasting with the odd architecture of the old castle on the other. I stopped to contemplate a scene of so much tranquility and beauty and regretted that I had omitted my pencil in this instance. There were three towers on this front nearly obscured by ivy, from one of which I could distinguish the tones of Clementine's piano, as she was practicing before any of the family had risen. While we remained at La Grange there was scarcely a nook in the park or adjacent grounds that was not explored by our charming young guides, who seemed determined that no favorite haunt of theirs should escape our admiration.

The general, in consideration of my acquaintance with his friend, Mrs. Lewis, showed me many little mementos he had received from the Custis family, among which were medallions containing the names of Washington's family and a ring set with the braided hair of Washington and Franklin.

While he was in this country Mrs. Lewis presented him with a view of her residence at Woodlawn, which she had requested me to sketch for him, but which, having been made some time since, I had nearly forgotten. He, however, gave me a proof of his better mem-

ory by reminding me of the circumstances and by showing me the drawing which is hung up in the library tower. * * *

His library and salon are ornamented with the busts and portraits of our Presidents and other distinguished patriots, together with that of Kosciusko, and everything in compliment to us is done in American style.

LAFAYETTE'S COMMENT ON DEATH OF ADAMS AND JEFFERSON.

John Adams and Thomas Jefferson. It will be remembered that those two patriots died within three hours of each other on July 4th of that year. The handwriting of Lafayette is plain enough not to necessitate the transposition of the following letter into type:

*The wonder is not that two men have died on the same day
 But that two such men, after having performed so many and
 such splendid services in the cause of liberty, - after the multitude
 of other coincidences which seem to have linked their destinies
 together - after having lived so long together, the object of their
 country's joint veneration - after having seen spared to witness
 the great triumph of their toils at home - and looked together
 from 'purgah' top on the sublime effluence of that grand impulse
 which they had given to the same glorious cause throughout
 the world, should on the fiftieth anniversary of the day
 on which they had ushered that cause into light, be both
 caught up to Heaven, together, in the midst of their Raptures!*
Lafayette

I have forwarded by another conveyance an autograph of his, on which I will make no other comment than to repeat his own words when he gave it to me. He says, "that if you should detect him in a plagiarism you must, at least, give him credit for a man of taste in the selection of the lines he has sent you." (See opposite page.)

He enjoys good health at this time and takes great satisfaction in walking around his farm and showing it to his numerous visitors. There are already eight strangers here, and Mrs. Mayo and her party are expected shortly.

Being sensible of the inconvenience to which they must be sub-

La Grange, 7th July 1898

Dear Sir, My Good Young Friend, The two Album Materials that have been kindly asked from me. Should the Amiable Collector detect me to have found a Plagiarist they will at least do me the justice to confess I have found a man of taste in my selection.

You will, I hope, be me know in time when I am to prepare my Southern Edition. Better will it be to come and fetch them yourself at La Grange the intrab'ns of which I shall trouble you with their cordial compliments

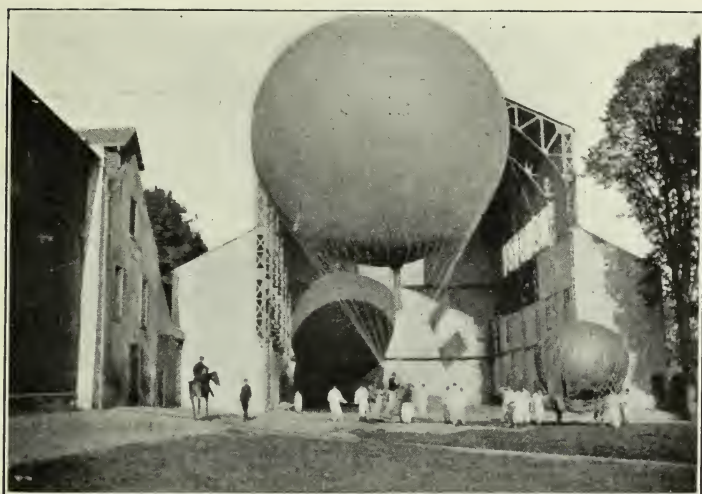
Most truly and affectionately Yours
Lafayette

jected by such a continual crowd of guests, we shall shorten our visit as soon as we can find an excuse for taking leave of them. We paid a passing tribute to the memory of the unfortunate Somerville by visiting his tomb, which is about a mile from here and in the cemetery belonging to the castle. It is designated by a plain horizontal slab of white marble, and at the head of the grave is another slab on which is inscribed in French and English his name, rank and his request to be interred at La Grange, together with a testimonial of the general's regret and friendship, etc., the whole enclosed by a neat iron railing.

The general took leave of us in a truly paternal and affectionate manner, saying that he regarded us as his American sons, and we on our part left him with that regret which always accompanies the thoughts of leaving a friend whom we never expect to see again on this side of the grave.

[TO BE CONTINUED.]





MILITARY BALLOON PARK, VERSAILLES.

BALLOONING.

BY LIEUTENANT FRANK P. LAHM, SIXTH CAVALRY,
UNITED STATES ARMY.



N these days of rapid advance in the domain of science perhaps no one branch is making more rapid or more startling advances than the "conquest of the air."

We have had spherical balloons ever since 1783, and the French used one successfully for purposes of observation at the battle of Fleurus in Belgium in 1794. A passenger balloon was sent up out of Richmond in 1865. During the siege of Paris in 1870-71, the railroad stations were all turned into balloon parks, and sixty-five spherical balloons were sent out, carrying 152 passengers, thousands of letters and several hundred carrier pigeons. Thus by means of the balloons and pigeons, communication was kept up with the besieged city all during the siege.

In most European armies there are balloon troops who devote their entire attention to the subject. In France, one battalion of the First Regiment of Engineers is a balloon battalion. The headquarters are at Versailles, not far from Paris. Here they have a balloon park with three large sheds

for sheltering inflated balloons, a large plant for making hydrogen gas and a large park of matériel. In case of war, they could send out balloon trains from here, each consisting of one wagon to carry the balloon and car, another for the windlass to wind the rope on which lets the balloon up and down when used as a captive, another wagon for the engine to run the windlass, a repair wagon and as many tube wagons as are required. These last carry six tubes each, each tube with a capacity of about 1000 cubic feet of compressed hydrogen. About sixty men are required to operate one balloon. This includes engineers, firemen, tailors for repairing tears in the envelope, etc. Every summer one company of the balloon battalion goes to the large camp at Châlons for practical work in connection with the other troops. Once a week in summer, a free ascension is made from Versailles to give the officers of the battalion practice in handling a free balloon, and in effecting a landing under different circumstances of wind, terrain, etc.

The signal corps in our army has just collected its balloon matériel at Fort Riley, and it is reported that they are about to begin a series of experiments there.

The *Aéro-Club de France* has a balloon shed just outside of Paris, and an idea of the popularity of this sport among its members can be formed from the fact that as many as three and four balloons go up from here at a time, and last year there was an average of one a day for the entire year. In 1900, two members of the club went from Paris to a point in Russia in their balloon, covering over 800 miles in twenty-one hours and a half. A member of the Spanish club has just succeeded in crossing the Pyrenees from France into Spain in his balloon, winning the cup offered by the French club to the first to accomplish this feat. Mr. Gordon-Bennett has recently offered an international cup, similar to the automobile cup, to be contested for by the members of all the different balloon clubs. The first race is to be held this summer and is to start from Paris.

Besides three clubs in France, there are similar organizations in Belgium, Germany, Austria, Switzerland, Italy, Sweden, England and Spain. Contests for distance, height, etc., are being held constantly, under the auspices of these different clubs.

‡ And now we have one of our own in this country, the "Aero

Club of America," with headquarters at New York. This recently organized club is starting out under very auspicious circumstance. Already it has a membership of over two hundred, including many of New York's most prominent people. An aerial exhibit under the able management of the club's secretary, Mr. Augustus Post, was held in connection with the automobile exhibition in January. Several balloons



ABOUT TO START FROM AERO CLUB, PARIS

have already been purchased and ballooning bids fair to become, in a very short time, as common in America as it is in Europe. The first ascension under the club's auspices was made from West Point on February 11th, by Mr. Levée, a member of both the French and American clubs, in his 12,000 cubic feet balloon *L'Alouette*. An enthusiastic crowd of New Yorkers and of officers, cadets and soldiers was present to see

him start. He landed at Kingston, New York, having made about fifty miles.

The spherical is the best pleasure balloon, and no one unless he has been up in one and looked down on the real map spread out below him—roads, towns, rivers, forests, stretching out on all sides, disappearing behind—can form any idea of the pleasure, of the feeling of exhilaration, of mastery, it gives to be able to sail over the country at an altitude of a thousand feet. Then you go up and the earth is shut out by the clouds beneath you. Then you might imagine you were out at sea, only it is a silent sea, the waves are softer than those of the sea, and roll over each other without a sound. It is like being transported to another world, a silent world where the only living thing is yourself.

But the "conquest of the air" is not to be made by the spherical balloon.

The next step is the dirigible of the Santos Dumont or Lebaudy type, a cigar shaped gas bag, holding a motor, propeller and rudder suspended beneath it.

In the summer of 1901 Mr. Santos Dumont started from the balloon park near Paris, circled the Eiffel Tower and returned to the starting point, making the distance of about seven miles in exactly thirty minutes. For this performance he won the Deutsch prize of \$20,000.

Last summer the Lebaudy dirigible started from Moisson, thirty-three miles north of Paris, and traveling by easy stages reached the camp of Châlons, a distance of 132 miles, in three days. Here, due to not having proper shelter for the large ship, a storm which came up in the night drove it into a tree, damaging the envelope so badly that the journey had to be stopped. The actual running speed on this trip was about twenty miles an hour. Later the Lebaudy made numerous trips from the fortified city of Toul in eastern France. The War Department sent out representatives to observe these maneuvers. Finally, in October, the Minister of War himself went up and made an inspection of the fortifications around Toul from the airship. Soon afterward the French Government purchased the Lebaudy and it is now stationed at Toul for the use of the army. Within a month a new one was ordered from the same firm, to be ready in seven weeks, and presumably for use on the German border.

In our own country Knabenshue has made the most progress in this line. Last August he made a trip from Central Park, New York, down to the Flatiron Building at 23d Street and back.

But those who have studied the question carefully are generally of the opinion that it is neither the spherical nor the dirigible that is to solve the question of the "conquest of the air." It must be solved by a machine which is "heavier than the air."

For years experiments have been made along this line with various forms of kites, flying machines or aeroplanes, and it is with this last device that it is believed the question has recently been solved, not by the French, who have always



DANISH AEROPLANE, RUNNING ON GROUND BEFORE RISING.

been the leaders in aeronautics, but by two skilful and ingenious Americans, the Wright Brothers, of Dayton, Ohio. Last October, after a series of experiments extending over a number of years, they succeeded in making a machine formed of two parallel, canvas covered surfaces, driven by a gasoline motor and carrying one man, which covered a distance of about twenty-four miles in thirty-eight minutes, over a circular course, and the only reason it finally stopped was because the fuel for the motor was exhausted.

They refused to credit this performance in France when they first heard of it, but after sending a representative over here to verify it, they immediately made plans to secure control of it, and it is now reported that the French Government has paid the million francs which the Wrights ask for their

invention. The fact that it was willing to pay such a price is an indication of the importance it attaches to this invention.

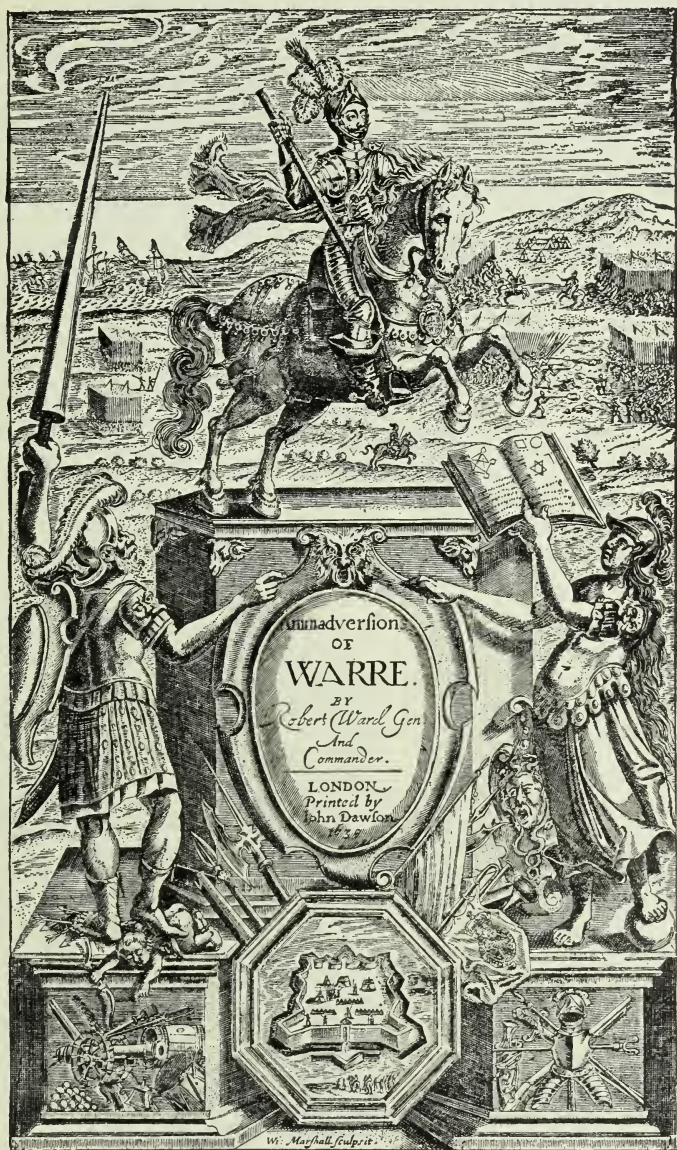
If we are to keep pace with modern science we must have ballooning in this country—we must interest ourselves in this subject of the “conquest of the air.” The Aero Club of America has opened the way.

If we are to keep pace with European armies we must have a balloon corps, furnished with and capable of handling spherical balloons, and ready to go on from there to the dirigible and the “machine heavier than the air.”

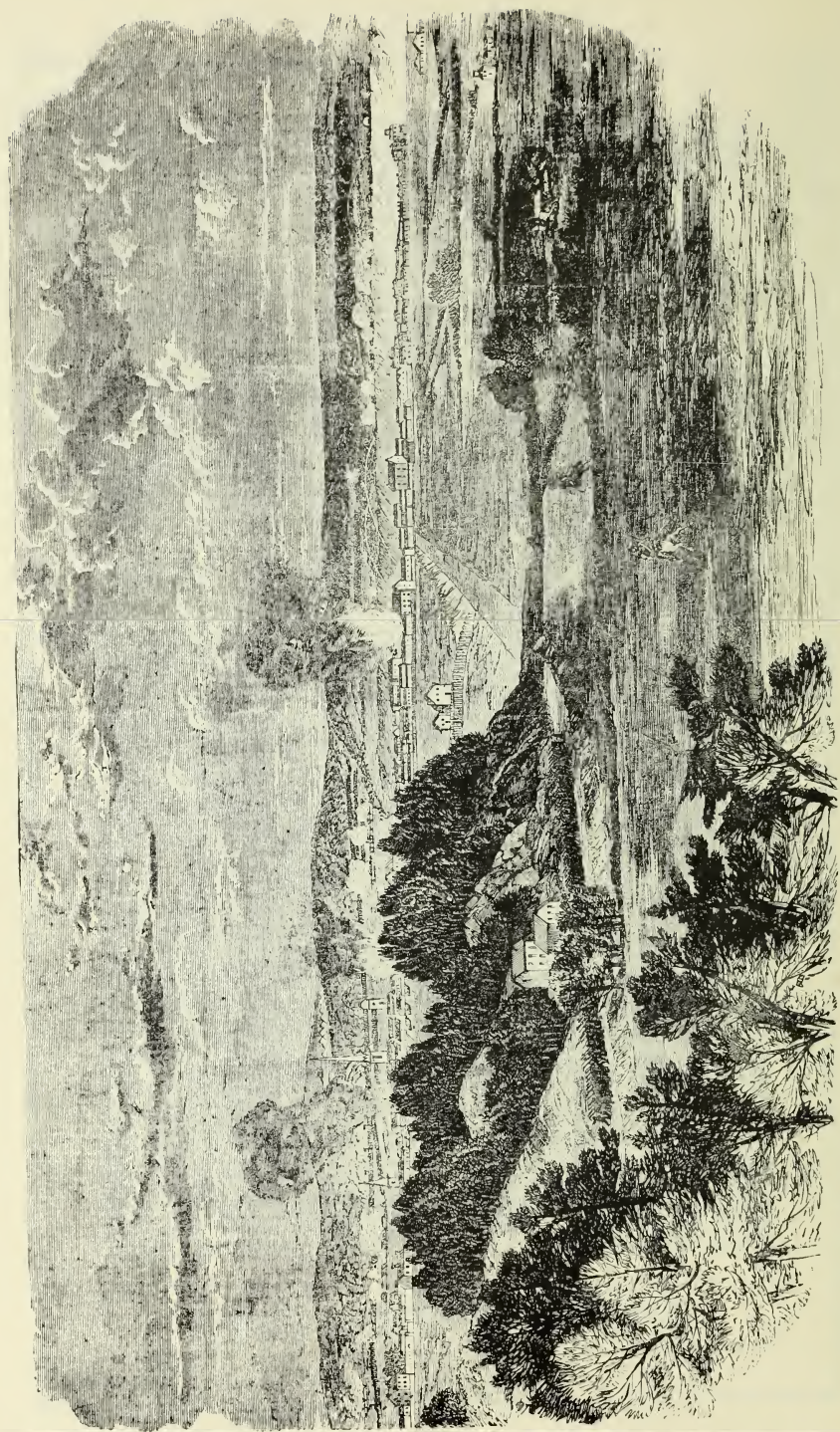
WEST POINT, NEW YORK, Feb. 17, 1906.



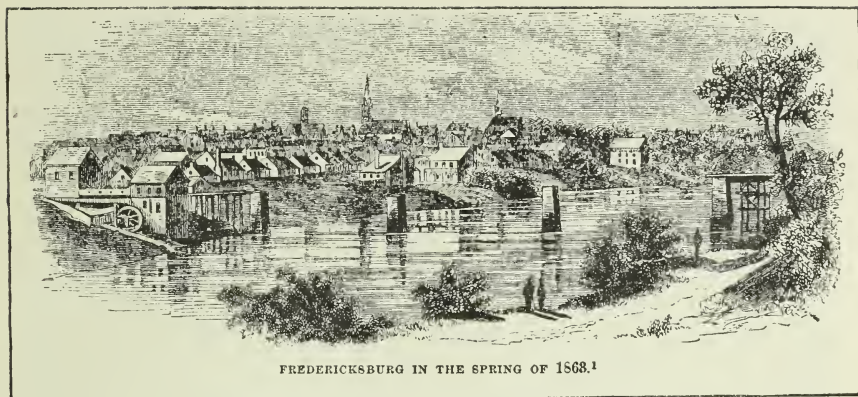
BIRD'S-EYE VIEW OF CHAMPS ELYSÉE, PARIS



Historical Miscellany.



THE BOARDWALK OF FREDERICKSBURG, VIRGINIA. BY THE FEDERAL, ON DEC. 11.—FROM A SKETCH BY OUR SPECIAL ARTIST.



TYPES AND TRADITIONS OF THE OLD ARMY.

EXTRACTS FROM THE UNPUBLISHED MEMOIRS OF MAJOR-
GENERAL ZENAS R. BLISS, U. S. A.*

III. CIVIL WAR NOTES. FREDERICKSBURG, 1862.

WE made our marches regularly with no annoyance from the rebels, though we occasionally heard of skirmishes between the advance guard of cavalry and the enemy. Toward the latter part of November (I do not remember the date) we went into camp opposite Fredericksburg, and remained there several weeks. There were two large brick houses between our camp and the Rappahannock; one of these, the Lacy House, I believe, stood on a hill about a half mile from the river, and was occupied by General Sumner, who commanded the right grand division of the army, in which or to which we belonged. Nearly on the bank of the river and directly opposite Fredericksburg stood the other house, the Phillips, and this was used as the headquarters of our pickets, which were stationed along the east bank of the river, and the rebels occupied the other. * * * As I have no reports to draw upon I shall only tell what fell under my own observation, and all of which occurred in a space covered by 500 or 600 men in line of battle.

There was a road leading from our camp across a deep ravine near my regiment, then across quite a wide plain, where the Corps was once reviewed by General Burnside, and down by the Lacy house, then down a natural terrace into another flat, and across that to the Phillips house. The whole distance from our camp to the river at the Phillips house was perhaps a mile. We received orders to have three days' cooked rations for the men in the haver-

*Continued from March JOURNAL. Gen. Bliss was (1862) Colonel commanding 7th R. I. Vols.

sacks and be ready to move at a moment's notice. We were all prepared on the night of the 11th of December, 1862, and remained in camp that night wondering what the morrow had in store for us. We of course knew nothing of the plan of battle, that is very few did, but owing to my acquaintance with the officers at General Sumner's headquarters I had perhaps heard more than most colonels in the army. I went nearly every day to Grand Division headquarters, and frequently watched the enemy throwing up breastworks on the heights back of Fredericksburg, and about half a mile from the river. We had a signal station near the Lacy house, and an observer present at all times. We knew the cipher used by the rebels, and could read all their messages that they signaled in sight of our station, and had a very good idea of what they were doing, and I suppose General Sumner had a very good idea of the troops in front of us, and their numbers. General Sumner commanded the Right Grand Division, General Hooker the Center, and General Franklin the Left Grand Division. There were, I believe, three pontoon bridges to build across the river, and under the fire of the enemy's batteries and sharpshooters. The engineer corps went ahead and attempted to build the bridges under cover of the fire of artillery. We had something over 100 pieces on the bank of the river, within pistol shot of the town. At daylight on the morning of the 12th we fell in and marched to the plain between our camp and the Phillips house, and there were halted. We remained there some hours, and I got permission to go to the river to see what was the matter with the bridge on which we were to cross, as it was said we were waiting for that to be completed. I rode across the plain to the Phillips house, and on the bank of the river above the house, and all around it, I saw a crowd of men and several batteries. Colonel Tompkins of the R. I. Artillery, was in command of the batteries. The bridge, built of large flat-bottomed boats square at the end, was completed about three-quarters of the way across the river, but beyond that it seemed impossible to build it. The rebels occupied the buildings along the bank of the river on their side.

Soon after I arrived several men of the engineers took planks and went toward the end of the bridge, unmolested, until they got to the unfinished end, when several threw up their arms, dropped their planks, and fell either on the bridge or into the water. The artillery was making a great noise about us, and we could not hear the reports of their (the rebel) rifles, and it seemed very strange to see the men fall without any apparent cause. This attempt was repeated several times with the same result. When the building party would get near the end of the bridge they would receive a volley from the rebel sharpshooters at not more than thirty yards distance, and some would fall, and the others drop their planks and row back under cover of one of the big pontoons. These boats were

perhaps six feet wide, and pointing toward the river, but on the bank; as the men would run back they would crowd up against the rear of the boat, and would be five or six standing shoulder to shoulder, the others would fall in in rear of them, and the farther they were from the boat the less would they be protected, so that the crowd of men took a wedge shape, running down from six or more in front to one at the end, and he squeezed up as closely as possible to the others to prevent being struck. In a few minutes the firing would cease and these men would get into a safer place. There were hundreds of men on our bank of the river, most of them had come, perhaps as I had, from curiosity, and though we could not have been more than 150 or 200 yards from the enemy, they did not fire on us. Only one shot came into the crowd that I knew of. I was sitting on my horse near the edge of the hill, surrounded by hundreds on foot, when suddenly a ball struck in the crowd, and all broke to get behind the house; the men on foot crowded in front of me and prevented my moving, and they seemed a long time in getting out of the way, but finally the stampede was over, and as no more shots followed we were soon busy watching the progress of affairs, almost as unconcernedly as if there had been no enemy present. After a while an order was received by Colonel Tompkins to open with all his guns, and for the engineers to attempt to build the bridge under cover of the smoke of the guns. It was terribly foggy, so much so that I do not think the rebels on the heights behind the town (Marye's) could see us, and for that reason, perhaps, they did not use their artillery on us. The guns, about 100, opened fire, on the row of buildings along the edge of town, and very soon there was a thick cloud of smoke and dust from the buildings, which at the short range were rapidly knocked to pieces, but the engineers, who again attempted to build the bridge were driven back. I thought there could not possibly be many men on the front of the rebels, and did not think it difficult to build the bridge, and volunteered to take my regiment and build it, and Captain Barrier, of General Sturgis' staff, who was with me, started to tell General Sturgis that I had offered to build the bridge. He had been gone but a few minutes before I saw a lot of men enter some of the pontoons and paddle toward the opposite shore, using them as boats to cross. One of the boats received a bullet from some sharpshooter who still remained, though it did not seem possible that a human being could have lived in one of those buildings, subjected as they had been to the fire of so many pieces of artillery, which tore the walls to pieces, and sent the stones flying in every direction. When the shot struck in the boat, hit someone, all the men in it dropped their paddles or poles and fell down in the bottom of the boat, under cover of its sides, and the boat drifted rapidly down stream. Other boats, however, crossed, and the men from them were soon rushing up the bank of the river, and the rebels

disappeared. I saw one man as he ran up the street in front of me, as he was rushing along some one stuck a musket through a fence, and I saw a puff of smoke and the man fell. I was told afterward that he was a chaplain of a Massachusetts regiment, but I could not tell across the river whether he was an officer or not.

As soon as the men crossed I started on a run to the Lacy house; as I turned the corner of the Phillips house I met General Burnside, whom I think was entirely alone. He asked me what was the news, and I replied: "Everything is all right, the bridge is across, and the rebels driven out of the town," and then hurried on to join my regiment. He smiled and seemed to be perfectly calm and unexcited. As I approached the Lacy house General Hooker came down from the steps and asked me the news; I told him as I had Burnside, and went up on the gallery of the house with him. General Sumner and many other general officers were standing there, and I was asked by Hooker to tell them, which I did. The regiment that had crossed in boats was from Michigan, but I do not remember who commanded it. I went immediately to my regiment, and soon after we commenced our march toward the river. When we reached there the bridge was completed, and we immediately marched across on it. I attempted to ride, but the bridge swayed so from the marching of the men that I thought it would throw my horse, so I got down and led the horse across. As my regiment was on the bridge two or three shells from the rebels struck in the water, splashing the bridge, but fortunately not hitting it or any of my men. The rebels had the range perfectly, and dropped their shells with great accuracy in the river, and very close to the bridge, which they could not see as it was covered by the houses of the city. After crossing I turned to the left and halted my regiment a short distance, two squares from the bridge, on the street next to the river. I stacked arms there, and ordered the men to remain near the stacks of rifles, went back to the street leading to the bridge, and sat down by General Sturgis and watched the passage of the other brigades across the river. One brigade came around the Phillips house and had a band in front, which was playing "Bully for You"; as they came to the edge of the steep bank of the river, a shell, fired with fearful accuracy, exploded in the midst of the band, which scattered in every direction amid the shouts and laughter of the crowd who were watching the brigade. I saw what I supposed were three or four overcoats lying on the ground the band had occupied when the shell exploded, and supposed that in their hurry to escape some of the men had dropped their coats, and was very much surprised to see several stretcher-carriers soon make their appearance and pick up the supposed overcoats, which were wounded or dead men. It was a not uncommon occurrence to see men laugh and shout when a particularly good shot was made by the rebels, and one or more of our men were

torn in pieces by a shell. Many men have laughed at such occurrences who would be insulted if told that they were not perfectly cool at the time, but the fact that they could show levity at such a tragedy showed plainly the condition they must have been in without suspecting it themselves. During the day and night all our Grand Divison crossed on that bridge, and the other troops, which had much less trouble, had crossed the Rappahannock below us, and the army was on the rebel side of the river, and had suffered scarcely any loss, but had been greatly delayed.

Two hundred men delayed an army of at least 30,000 men (our Right Grand Division) several hours, and though it did not make any great difference in the result, it might have caused the loss of a battle. I was told, a few days before we crossed the river, that the Army of the Potomac numbered, on paper, 150,000 men, and I supposed that Burnside must have had nearly 100,000 men for duty that day. There was very little firing during the afternoon and night, and the men laid in the streets, and I took a bed I found in a vacant house, and my field and staff occupied the bed and room with me. It was a terribly dark night; the fog which had existed several days was as thick as ever, and there was a drizzling rain, and as there were of course no lights in the street, it was almost impossible to get about from one house to another. Just at dark Captain Mighels, adjutant-general for General Sturgis, came to me and asked me if I did not want to ride out to the grave of Martha Washington. I told him, "yes," and we mounted our horses and started. It had gotten quite dark by the time we reached the edge of town, going toward the graveyard. As we rode along we heard someone call from behind us, and asked us where we were going; we told him, and he said: "Well, you had better come back; I am the last of our pickets, and the rebels are right ahead of you," and we turned and rode back. Why we were not fired on was a mystery, for we were within fifty yards of the enemy's lines. Mighels remained with me that night, and he and I slept in the bed. He got a chicken's head that had recently been cut off, and drew a sort of horseshoe on the wall over the back of the bed, and put around it cabalistic signs and figures, saying he was going to "hoodoo" us. After it was drawn he went through with some absurd performances, and pronounced the charm complete, and that we would pass through the battle unscathed. He slept on the back side of the bed next to the hoodoo, I next, Page next, Babbitt next, then Sayles, the doctors and the chaplain. After going through his incantations we were soon asleep, and sleeping as soundly, as far as I know, as we ever did, though we all knew there was to be a terrible battle in the morning, and that probably some of us would pass in our checks. Nearly all the inhabitants had left the town, and during our stay there of three days

I saw but one citizen; he had remained to look out for his house and property.

During the evening some of the Zouaves found a place nearly opposite our house where a lot of bacon and flour had been "cached"; they got lights in some way and commenced digging up the provisions. The rebels must have seen the lights, for while the Zouaves were digging away and congratulating themselves on their find, a shell was dropped and exploded right in the midst of them, and several were wounded. The part of the street in front of our house had been burned and several chimneys were left standing, and I cautioned my men to keep away from them, not to put their blankets for the night where they could be hurt by the falling bricks and stones. I think my men followed my advice, but others were less careful, and during the night one or more chimneys fell, killing or wounding several. I have said that during the day and evening our army crossed the river; the artillery and cavalry did not cross, at least but a very small portion of it. There was no use to which the cavalry could be put in our part of the line, and the artillery did not cross, or at most only a very few batteries—I saw only one gun—but they were massed on the opposite side of the Rappahannock where they could have a more commanding position, and perhaps do better service. Though I have always thought that a few batteries, properly protected, as they could have been, would have been of incalculable service to us in the charge next day, perhaps being able to silence some of their batteries, at least have drawn a portion of the rebel artillery fire, which tore our columns to pieces as we rushed across the field against the stone wall and attempted to surmount Marye's heights. But to the best of my recollection not a gun was fired, except one which was at the corner of a street and fired a few shots as I went on to the field.

We were up early on the morning of the 13th of December, 1862, and made our breakfast from the cooked rations we had brought with us from our camp the day before. Firing had already commenced and was very brisk. General Hancock had moved up on to the plain between the city and Marye's heights, and had assaulted them, but had only advanced part way across the plain when he was stopped by the heavy fire of artillery and infantry which, was poured in on him from the heights and the rifle pits and stone wall at the bottom of the hills. I moved my regiment down the street on which we had slept, and halted one or two squares from where we had bivouaced, and there we remained in the street some time. The first man hit in the regiment that I knew anything about was a private who attempted to go up the street on which we were halted, and as we passed one of the cross streets a shell or piece of one knocked off his cartridge box, without hurting him. Shells were frequently flying over us, and some burst over our heads and the pieces, fell in the street. One piece

struck on a slate roof of a building in front of where I was sitting with the field-officers of the regiment; as it fell from the roof it came down very slowly, and a soldier reached out his hand and caught it. It was revolving very rapidly, and when it struck his hand, which he had reached out for it, it lacerated his fingers and made the blood run, but I do not know that it disabled him. I believe that was the first blood shed by my regiment in that battle, but there was plenty of it before night. The street on which we laid was parallel to the river and nearly so to the line of battle. After a while I received an order to move on to the plain and support General Ferrero. He was a dancing master from New York and had been the instructor of dancing at West Point. He was a good soldier, and was commanding at that time a brigade. I moved up one of the streets perpendicular to the river, and when I got to the head of the street, turned to the right and moved along three or four squares, which brought me outside of the city and immediately in rear of our part of the line of battle, as I did not know where Ferrero was, and there was no one to tell me, and we could not fire without injuring our troops, I ordered the men to halt and lie down. We remained there a short time till an aide came along and, asking for me, told me to move to the front and join the other troops already there. When I ordered the men to lie down at this point, I was immediately behind a fence and facing the enemy. They had a battery of heavy guns on our right, and had the range of us perfectly; they were up on the heights and could see us distinctly.

The field-officers were lying down in rear of the men, and the battery was nearly on the prolongation of the line of my regiment. Bullets were flying from the front very thickly. I saw a man clap his hand to his head, and saw the blood trickle through his fingers. He spoke to me and said he was shot; I told him to cover his head with the cape to his overcoat, and remain where he was, as I thought he was very badly wounded. I went to the rear of the line and laid down with the rest. I had been there but a few minutes when a shell passed over my head, pretty close, and struck to my left and ricocheted down the street, without hitting any one. Colonel Sayles was about twenty feet to the right of me; he was lying on his left side and resting on his left elbow, a little diagonally with the general line. Major Babbitt was to my left, near the left flank of the regiment. I was lying on my stomach resting on both elbows. I was looking at Colonel Sayles, when a twenty-pound Parrott shell or shot struck him in the breast and nearly cut him in two. It ricocheted and passed over my head, carrying with it a mass of blood and pieces of his lungs. One piece struck me on the cheek, another on the cap, and a third quite large piece fell between my arms as I laid on the ground, and I scooped up the mud and covered it as it was right under my face. I thought it was a part of his brain, it seemed soft and pulpy. I did not know where he was hit, but I saw the upper part of his body turn nearly

completely around, so that his face was partially toward me, though he was lying with his back to me. Very soon another shell struck near me on the left, passing over my head, and Captain Rodman called to me to come up nearer the fence, that I was directly in range of the shells, and I did so. I had hardly laid down before another shell passed through the bottom board of the fence, and so near me that I could put my hand in the hole it made in the board. A shell from this battery struck Sergeant-Major Manchester, taking off his left arm.

I was very glad to get the order to go to the front, when the aide came up, and immediately gave the order. All the right side of my overcoat was covered with blood from Colonel Sayles' body. I suppose it was about two hundred yards from our lines to the extreme front of our line of battle, and the space was cut by two board fences, posts with four or five horizontal boards nailed to the posts. We went over the first fence, but it took some time for the men to get over, and when we came to the last fence I told them not to attempt to get over it, but for all to take hold of the top boards and pull them off; they attempted it, but the boards were nailed on with railroad spikes and could not be pulled off. I saw a place where a shell or shot had knocked the top boards off, and I ran toward that, and just as I got to it a man stepped into the gap and was hit and pitched headlong over the lower boards, another attempted to pass and he also fell. It was then my turn and I went through. As soon as the regiment was clear of the fence we went on at a run, and I remember that I thought I could see a V-shaped space in front of me, as I ran, in which no bullets were striking, as though they left a clear space for my special benefit. We were soon up as far to the front as anyone had gone, and we passed over the hundreds or thousands of men lying there in line. The fire was so deadly, and the men fell so fast, that I think those who were not hit thought the order had been given to lie down, for without any word from me they all dropped. The color-sergeant, Wiegant, got up, and taking the colors, went eight or ten paces beyond any flags and stuck the staff in the ground, farther to the front than any others had been placed. Of course as soon as we got on the line we commenced firing, and kept it up as long as the ammunition lasted, and then fixed bayonets and remained until we were ordered off the field, after dark. The fire was terrific, and I have never heard anyone say that they ever experienced anything like the fire there for so long a time. I suppose we were about one hundred and fifty yards from a stone wall, sunken wall, behind which stood Longstreet's Division of veterans. This wall was a supporting wall to a cut made from a road that passed along the foot of Marye's heights, and the face of the hills were covered with rifle pits. On top were about twenty-four pieces of artillery, which had a plunging fire on us, and we had not the slightest cover whatever. The field over which we had attempted to

cross had been cultivated, and was nearly level. While we were thus exposed the rebels were so completely covered that I did not see but three during the day, but the smoke and flash of the muskets were plainly visible. We remained in that same place until after dark, without doing the slightest injury to the enemy, but suffering terribly ourselves.

One strange thing that I noticed, and everybody spoke of the same thing, was the rapidity with which time passed. One would think that, lying there as we were, expecting every minute to be hit, and seeing our comrades falling constantly, that the time would have passed very slowly, but it went so rapidly that I was very much surprised when it began to grow dark, and could hardly believe that night had come, though I guess every one on that field was praying for it. After the war, when stationed in New Orleans, I met Major Miller of the Washington rebel artillery. He commanded the batteries on the hills in front of us, told me that as he was passing by one of the batteries a soldier spoke to him and said, "Major, this is not fighting; this is murder," referring to the fact that they were deliberately tearing our ranks to pieces, while their losses were almost nothing. They fired spherical case-shot, principally, and they frequently exploded among our men, killing and wounding many. Adjutant Page had sat down on the ground beside me, and Captain Winn sat on my right. Page asked me how I thought the battle was going, and I told him I did not know, but I thought we were getting the worst of it. Just at that moment a spherical case-shot, filled with bullets and slugs, exploded immediately over our heads, and very close to us, probably not more than three or four feet above us. Page was struck on the head and fell on my left arm. Captain Winn asked if he was killed, and I shook my head, as I did not want Page to hear the remark if he were alive; he did hear it and raised his head and said, "Colonel, I am not dead." I told him he was all right, to cover his head with his overcoat cape, and lie still and I would have him taken off the field as soon as possible. When he raised his head I saw that his left eye was gone, and the blood was streaming from the wound; the projectile entered his left temple and knocked out his eye. At the time the shell exploded I was struck pretty sharply on my left wrist. I had on a soldier's overcoat and had the sleeve rolled up so that it was several thicknesses on my arm, and the bullet struck on the roll and did not break the skin. When Page raised his head I saw the bullet lying near my wrist, covered with blood, and I suppose it had passed through his head and struck me, and I picked it up and told him that was the bullet that hit him, and to keep it. He carried it home and showed it to many people as the bullet that knocked out his eye. Three weeks after he was wounded he had a slug of lead pipe, that had been pounded together and then cut off into slugs and put in the shell, cut out of his right cheek bone. It had been in there three

weeks and he did not know it. It entered his left temple and passed through the eye and under the nose and lodged in the opposite cheek. It was over an inch in length and weighed an ounce and a quarter. The bullet had not touched him, but struck my wrist.

While we were sitting there a bullet struck Captain Winn's tin shoulder-strap, and curled it up like a shaving. Major Babbitt came to me and said the troops behind us were firing into us; I told him to call out to them to stop. He turned to walk back to his place in the line, and was struck in the back by a bullet which passed through his left arm, making four holes. Many officers and men were wounded while we were lying there. Some one came to me and told me that the men were out of ammunition, and I ordered them to fix bayonets and stay where they were, knowing that more would be killed in getting off than in waiting until dark. At one time I saw three rebels coming down the hill in front of us, trying to get to the rifle pits or to the stone wall. I took a rifle from a corporal, and intended to shoot at them, but as I put the gun to my shoulder they had disappeared. The corporal saw them, and reaching over my right arm took hold of the rifle—I still had it to my shoulder—and pointed it at the men. As he was doing this trying to point them out to me, a bullet passed under my arm and through his heart, and he fell dead against my foot. Some little time after dark an aide came on the field and asked if I were there, and when he found me he told me to take my regiment back to their quarters in town; I called out to fall in, and the men all formed in ranks. Just as they were formed, some one, I think it was Lieutenant-Colonel Mitchell of the Fifty-first New York, called out "What regiment is that?" and I answered, "The Seventh Rhode Island," and he cried out in a loud voice, "THREE CHEERS FOR THE SEVENTH RHODE ISLAND!" The rebels heard the cheers, which were given by the whole line in that vicinity, and fired a volley that sent many of my men to their last homes. We were standing up, and they had a fair shot at us, though it was too dark for them to see us distinctly. As we turned to march off the field we went outside of a fence, and many wounded were lying about. As I passed one poor fellow he said, "For God's sake give me some water." I thought at first I would keep on and let some of the men behind me give it to him, but I could not do it. I went back and gave him my canteen, and have never heard of him since. It was not a pleasant thing to turn back on to that field, and I think I hated to do it worse than anything I did that day or ever did. We marched back to the street where we slept the night before and I took my same quarters.

I threw myself on the bed, and was about as blue as ever I was, I guess. I was the only one in the room of the eight or nine who had slept there with me the night before. Sayles was killed, Babbitt and Page and the sergeant-major were wounded, the two doctors

were in the hospitals attending to the wounded, the chaplain had gone across the river, and Mighels had gone with his chief, Sturgis, and I was alone. On the morning before the fight I had given my watch to the doctor, Harris, and he had given it to his attendant, Frank White. I had hired a very bright little colored boy in Washington as a servant, and had left him in camp with another servant. I was somewhat surprised to see him come into my room this evening, with the man who took care of my horses. I supposed the battle would be renewed in the morning, and knew if it was it would be at least as bad as it had been that day, and that my chances of getting through were slim, so I told Bob that if anything happened to me, to go home to Rhode Island and my mother would take care of him, to which he replied in a reckless sort of style, "I ain't goin' to Rhode Island, but if you get killed I am goin' to have your watch—Frank White shan't have it." I was rather surprised at such devotion and let him look out for himself thereafter. He became quite noted afterward as the boy who picked up the knife with which the assassin attempted to kill Mr. Seward. His name was Bob Wilson; he was a pretty good boy, but left me soon after the fight. We were without ammunition and there was none to be had that night, so the men slept on their arms in the street. We did not get ammunition until quite late in the day, and when it did come General Nagle came with it and told me that General Burnside was going to take the Ninth Corps and charge the heights, leading the assault in person. That was his intention at the time, and he was only prevented from doing it by General Sumner. Such a charge at that time simply meant annihilation for the corps. We made ready for the charge, but fortunately it did not take place, and we remained in the street all that day, the 14th. In the night we were put on picket, and were among the last to leave the city.

On the night of the 13th, after we came off the field, I laid down for a while to rest, for I was pretty well tired out. I weighed at that time about 260 pounds, and was handicapped with a saber, overcoat, three days' cooked rations in my haversack and a six-shooter; rather too much to run any great distance with, or to carry for any great length of time. After getting a little rested and some supper, I went to the church that was used as a hospital. The rebels had seen the lights in the building and had fired two or three shells through the roof, which had the effect to put out all lights, except a few candles that were kept lighted in the pews and on the floor, and by this dim light the surgeons were working. As I entered the door a man spoke to me; it was a soldier named Simmons, from Olneyville, the one I had seen shot in the head when we first went on to the field. I spoke to several, and Major Babbitt heard my voice and called to me. I was not used to the dim light and could hardly make my way through the church, on the floors of which were many wounded. When the

major called I could not tell where he was, but answered and asked him where he was. He replied, "In the last place you ever expected to see me, in the PULPIT, by Jove." I worked my way to him and found him lying in the pulpit and as comfortable as could be expected. He was in splendid spirits and I hoped he would soon be well. He was moved to our old camp with the other wounded, but was soon sent to Washington, and died just before reaching that city, I believe. He used to get nervous nights, and would send for me, and I have frequently gone to his tent and sat with him until daylight. He always seemed positive that he would recover, and was anxious to get back and give them another trial. He was a good officer, and a brave man and a good companion, and I missed him very much. I sent Captain Stone of my regiment on to the field after Colonel Sayles body, and it was shipped home to his family. I at once appointed Captain Church, lieutenant-colonel, and Captain Tobey, major, and they were commissioned as such by the governor.

The musketry fire was very heavy all day, but after dark it gradually ceased, and during the night there was only an occasional shot. It was at this time that Stonewall Jackson is said to have proposed to General Lee to charge the city with his corps, but which was disapproved by Lee. What the result would have been it is impossible to say, but I believe he would have been repulsed, unless the greater part of our men were without ammunition, as I was. While on the field there was a constant stream of bullets passing over us; as they passed close to one's head they made a noise, very short and sharp, a sort of "tst", but when farther off would hum or sing. The shot and shell were poured on to the plain all day long. When the shells exploded near, or on, the ground they made a noise similar to the rise of a covey of quail; there would be a "pop" and then the whirl and flutter of the pieces of shell, that sounded very much like the noise made by the wings of a quail. I saw one shell strike the ground immediately under a man's body, as he laid on the ground, and it threw him nearly two feet in the air, and I suppose killed him instantly, although it did not explode. Many officers and men who were not wounded had their clothing torn or were struck by spent balls. Of these I remember Captain Winn had his shoulder strap shot off, Captain Tobey had a bullet through the leg of his trousers. I was hit on the wrist and in the left breast; when I was going on the field I was struck by a bullet that did not have force enough to penetrate my overcoat and other clothing, but made a black and blue spot on my left breast, about as large as a half dollar. Captain Rodman was a brother of General Rodman, of Rhode Island, who was struck in the breast with a piece of shell and killed at Antietam. Captain Rodman of my regiment was struck by a piece of shell in exactly the same place, and though he was badly wounded he recovered. Captain Remington had his jaw smashed by a bullet, causing a very bad

wound. Lieutenant, (now Judge), Wilbur, of Providence, was shot through the thigh. Captain Kenyon was struck by a piece of shell on the left leg and had his foot sprained or broken. The right side of my overcoat was covered with blood of Colonel Sayles, and the left sleeve of it was soaked in the blood of Lieutenant Page, whose head rested on it when he fell from the wound in his temple; and the front of my coat was bloody from laying down on the ground where blood had fallen. The quartermaster-sergeant of the regiment exchanged overcoats with me after the fight, and I lost the coat, not thinking that I should care for it, but I should value it highly if I had it now.

Col. George H. Brown, Twelfth Rhode Island Volunteers, was in the fight and told me of a horrible sight he witnessed. He said that in rear of one of the small houses that were on the left of our position on the field there was a cistern in the ground, that soldiers had torn the top off and dropped in there for protection; they were principally wounded men, and the cistern soon became too crowded for the men to stand, and that they then pulled the weaker down and stood on them. At the time he saw them the cistern, which was probably eight or ten feet deep, was nearly full, and that the men were fighting and pulling each other down so as to keep their own heads above the dead and dying, or to keep from being hauled down and trampled to death. I did not see the place, but it must have been one of the most horrible sights ever witnessed on a battle-field. During the thickest of the fight, and when the air seemed full of bullets, I saw a black horse with saddle and bridle run along between our lines and the rebels, and, I think, back again, and then turn and run off the field, apparently untouched. There was a big black Newfoundland dog belonging to the Fifty-first New York that stayed on the field all day, and when I saw him he was all right, but I believe he was killed later in the day. There was such heavy firing that there was very little moving about on the field. When troops got as far to the front as they could go they laid down and generally remained there, though there were several attempts made during the day to charge the rebel position, but the efforts did not amount to anything. I saw but two general officers at the front that day; General Hooker was pointed out to me as he rode toward our line on our left. And I saw and spoke to General Griffin of the Regular Army, just at night, and asked him if we could not have the artillery play on the rebel batteries, but he said, "No."

As the regiment was marching through the streets to go into the fight the morning of the 13th, I stopped and let them march by me, and as they passed I counted them, and made out about 590 enlisted men, and nearly a full complement of officers. Our loss as reported the next morning was one lieutenant-colonel, one major, four captains, three lieutenants and 211 enlisted men—nearly forty per cent. of the command. The number of enlisted men killed and wounded, or so reported, was considerably diminished by later reports.



PRIMARY CONDITIONS FOR THE SUCCESS OF CAVALRY IN THE NEXT EUROPEAN WAR.

LECTURE BEFORE THE BERLIN MILITARY SOCIETY, BY LIEUT.-
GENERAL VON PELET-NARBONNE.

(Translated for the *Journal Royal United Service Institution.*)

THE American Civil War of 1862-65, however, is of special importance, offering, as it does, peculiar opportunities for a critical examination of the question with which we are concerned. The only difficulty lies in gauging how far that war justifies one in drawing conclusions, so different would be the conditions under which war would be waged in Europe. If from one point of view the lessons of the war are of great value, as resulting from a wholly unfettered judgment, since with neither antagonist had tradition or ordinary routine, which are often opposed to real progress and actual requirements, anything to say in the organization and handling of the mounted forces; on the other hand, the surroundings were so different to those on a European theater of war, and the armies so dissimilar to those we can call out, that it is hardly possible to draw any safe conclusions from the experiences gained during it. Although there was a wide dissimilarity between the Federals and the Confederates, the material on either side, both in men and horses, was quite different to ours. While the South possessed in its sport and *shikar*-loving population and in its well-bred horses a material which is of greater value than that at our command, the North had neither suitable men nor horses, and only in the closing years of the war were they able, by dint of practice and by enlistments in the Western States, to form some kind of a useful cavalry. Under such conditions as obtained in the Southern States—as will nowhere be found in Europe—it was there possible to improvise an excellent mounted force, deficient, however, in the attributes which would have made it fit to take its place in line of battle. For this both the troops and the leaders were

wanting in practice and experience. In the North, where the raising of cavalry at first led only to disastrous results, far more was accomplished in the way of improvisation of artillery (as by the French Republic in 1871), and this arm soon showed a great superiority over that possessed by the South.

How little one can measure such unique, brilliant performances—as some of those by the Southern cavalry—by the European standard we understand from the raid made by Stuart in October, 1862, into Pennsylvania, with 1800 horse and two guns to rear of the whole hostile force, during which, owing to the wealth of horses possessed by the country, he was able to remount the greater number of his men, who then marched on, riding a new horse and leading the old one. The Northern cavalry also followed suit, when, at the end of April, 1863, they burst into Virginia under Stoneman and took 800 horses from the Virginian farmers.

The fact that these raids were successful invites discussion as to the possibility of this sort of warfare in a European campaign. I cannot altogether agree with Lieut.-Colonel Frhr. von Freytag in his "*Studien über Kriegführung auf Grundlage des Amerikanischen Sezessionskriegs*," when he states that "to-day no army has such a preponderance of cavalry that it would occur to any leader to use it, as here, in partisan warfare, and thus expose it to losses which would render it unfit for use in some important operations." It is clear that in a hostile country the question would always arise in regard to such operations, as to how many of his mounted men the general in command could count upon seeing again, and whether the venture seems to promise adequate results. It is very plain that in 1870-71 our cavalry, as also that of the French, was, owing to faulty armament and training, quite unfitted for such operations, and on a European theater of war raids, as carried on by Stuart, could hardly be decided on if cavalry divisions, organized as such, are to be ready for use, as they now are expected to be. But were it possible, as a condition of success, to arrive at greater independence in the cavalry divisions as self-contained fighting units, it is difficult to see why these should not find opportunities for operating against the enemy's flanks and communications (which in these days of gigantic armies have increased in importance and vulnerability) as well as for work of other kinds. If this is not admitted then we renounce getting the full value of the element of speed, whereby cavalry can appear quickly and again disappear from view, while the provision of more self-contained fighting units will, naturally reduce the risk of increased losses. I consider some of these raids to be perfectly feasible in European warfare under similar circumstances—such a one as that, for instance, which the Northern general, Stoneman, carried out with 3500 horse between the Rappahannock and James River in April, 1863, and which occasioned immense loss to his opponent. The question of the utility of such a raid as an isolated case must be decided on its merits. I am now merely discussing its practicability. For on the other hand, it is undeniable that such raids had, not infrequently, disastrous results, as when, for instance, in Wheeler's march with the Southern cavalry at the end of August, 1864, to destroy the railway at Chattanooga, the achievement bore no proportion to the sacrifices it entailed, while, worse still, it robbed General Hood of the bulk of his cavalry, with the result that his information was faulty, and being threatened in rear, he was compelled to fall back. Naturally the carrying out of such operations in one's own or in a friendly

country is considerably easier than in a hostile one, and it appears to me unquestionable that had the French cavalry been better organized and trained in the second part of the war it would have been able to operate with considerable success against the inferior *etappen* troops holding our lines of communication.* One can imagine what an influence the French cavalry would have exercised upon the German operations had it succeeded in cutting the railway between France and Germany for any length of time.

A characteristic of the cavalry actions of the war of secession was the constant employment of dismounted fire. The reason lay in the fact that the Southern horsemen from their open-air life were mounted sharpshooters excellently trained in the use of the rifle, but wholly unpracticed in the close-order movements of the attack *as cavalry*; the thickly wooded country, however, in which great battles were fought out, necessitated the mounted riflemen form of action if the cavalry were to be anything but mere lookers-on. No doubt also for the same reasons, it happened that fire-action was frequently employed when the occasion was unsuited for it, as when Stuart, dismounting his men to attack Buford's brigade in the Brandy Station Battle, was placed in grave straits by the sudden appearance, in his rear of a mounted brigade of the enemy. Against any other foe he would have paid dearly for his faulty tactics. In spite of the frequent employment of dismounted action, these horsemen had about them nothing of the character of mounted infantry. They looked upon themselves as cavalry, and proved that they were such by the excellent use they made of their sabers in various attacks carried out by individual squadrons and regiments.

On the 8th of June, 1863, Stuart did employ his men in mass under General Lee in an important operation entirely as a mounted force. At the same time the men were so accustomed to fight on foot that for them it was an every-day affair, and their operations—such as that where Stuart carried out a night attack, dismounted, at Catlett's Station, on 22d August, 1862—may be taken as models for that form of action. Over and over again the cavalry entrenched themselves to hold certain points, as did Sheridan, the best of the Northern generals, in order to secure his communications at Old Cold Harbor on 31st May, 1864.† If, then, the use of cavalry in this Civil War cannot, in many respects, be looked upon as a model for us we still learn from it what can be done by a cavalry to whom fighting on foot comes natural, and which has equipped itself in every way for the particular exigencies of that theater of war. In any case, one must remember that *from the days of Napoleon until the present time in no single campaign has cavalry exercised so vast an influence over the operations as they did in this war*, wherein, of a truth, the personality of the leaders has been very striking: such men as, in the South, the God-inspired Stuart and, later, the redoubtable Fitzhugh Lee; and on the Northern side, Sheridan and Pleasonton. Stuart, the personification of heroism, became also the pioneer.

*See Cardinal v. Widdern's, "*Der Krieg auf den rückwärtigen Verbindungen des deutschen Heeres, 1871.*"

†We see everywhere in this campaign that the constant employment of dismounted action in no way destroyed the dash of the mounted man. When considering the Russian cavalry in the last Turkish war we shall find the exact opposite to be the case.

ON THE RETIRED LIST.

(N. Y. *Evening Post*.)

THERE is a fine old gentleman who passes my window daily whom I am constantly tempted to salute. He walks on, erect and active, shoulders straight and true of line, step firm and regular, and is of that clean-cut, well-dressed type which defines his social position and expresses his place in the world.

The pure whiteness of his gray hair, the clear color in his cheeks, even the irreproachable gloss of his well-brushed hat are all indications of the man. I need no one to tell me that he is on the retired list, although all of the man, body and mind, are fit for active service, but he delights me by his determined gait, his unmistakable respect for himself and his own powers, though his threescore and ten have "shelved" him.

He goes to his daily haunt—office, club, reading-room?—wherever he elects to spend the midday hours, with great regularity, and always with the same energetic look of pleasant occupation. You would know precisely how he would meet a friend should a familiar face present itself at the corner: You could measure to an exact comprehension the warmth of his steady grasp, and with your mental ear hear his cheerful greeting.

I wonder so often where his active years were passed, whom he controlled and what he influenced. He has the unquestionable air of one well used to command, and accustomed to obedience; in an emergency he would be listened to by a crowd, but now—I am sure of that—he has to make himself believe that he has duties and be very busy about them. To be an idle, useless man is impossible to him.

That great and, to me, most interesting body of men and women who have reached a place in their life's journey where the word of command is distinctly given to "Halt!" though apparently withdrawn from the helpers of mankind, and supposedly passing out of sight into the quiet places where they await the close of unimportant lives, are sometimes among the most valuable members of the community, and also, alas, are as often found among the most pitiable of our brethren. I would wager a rash sum that my friend of the opposite side of the street never passes a day that is profitless. Some one turns a grateful look upon his pleasant face before the sun sets.

It is said that there is no man of less importance than an ex-President of the United States, yet we have an eminent example of a man living among us whose words command instant, respectful attention; and whose name guarantees the honest intent of the enterprise to which he lends it. Retired, indeed, is his domestic, studious life, but he can never cease to be a great man among his countrymen, even though some of them may be his enemies.

There is no real reason why the relinquishment of office should include sinking into the dulness of an objectless existence, or that the retirement of men and women ageing with the lapse of years, should mean that they felt themselves of no use in the world where experience and sagacity are so sorely needed. The mere tempering of impetuosity by the lessons of their lives, learned in the stern schools in which we are all taught, is in itself no slight contribution to the happiness of the young and those just entering into the more earnest work of life. These elders who are able to sympathize and to comfort; those who can tell of storms passed in safety, bring such assur

ance to untried hearts; these men who can help their young brothers to retrieve lost ground and assure them that one defeat does not mean destruction to hope and ambition, are almost always found outside the battle-grounds. * * *

These fine, disciplined, thoroughly taught men of our army and navy now stepping out of the ranks to make promotions possible to their younger comrades, weary of long detention in the lower grades of the service, carry in their well-furnished brains that which nothing can give but actual experience, and in cases of extreme emergency, the majority of them could give to their country what no other men could. Genius in war times may accomplish wonders, but demonstration of positive results is what tells most surely. Who of all the Japanese heroes out-weighed the value of that aged engineer, who had been reckoned too old to tax with the terrible strain at Port Arthur? Though he labored with a sore heart, knowing his brave son had just yielded up his young life, and handicapped by the physical restraints of an old man, his achievements were among the chief wonders of that wonder-making fight. I am ashamed to have forgotten his name!

It is well that the old make way, and that they who are most in touch with the marvelous revelations of modern science should bring them to the proof, but he who carries in his silvered head a brain which has digested the knowledge and experience of that which is incontrovertibly proved, has no need to feel that he cumbars the ground, and that he has to walk humbly as among those for whom his country has no use. He rather has reason to be proud that he has earned a rest alike honorable and honored. Keeping himself abreast of the times, he will find that he is able to solve many a so-called new problem already worked out under old conditions, and his judgment will strengthen many a doubtful decision. It lies in the man himself how far retirement means uselessness. * * *

It seldom happens that at once the step taken is as abrupt and decisive in family life as in military or the higher offices of the masculine profession. Yet sometimes circumstances do so sharply define the retirement from parental offices of government and importance. Not infrequently the father, and mother are too wise, too truly loving, to attempt to establish a new government of which the ruling is to be carried on under two queens. The bee-hive tells us better things than to cherish any such fallacy. The gracious retirement from office of the dowager queen often places her on a new throne from whence her reign will be as full of power as of old, though wholly from a new basis.

* * *

But old homes and unchanged firesides are rare in this land of unsettled interests and cravings for new and greater things; and, oftener, we see, as in a very recent public instance, the luxurious dwelling abandoned and the young wife taking the mother's place. The moral and emotional conditions, however, are unchanged, whatever the circumstances may be. It rests with the retired officer to dignify and adorn the new position. If the scepters laid down were symbols of government and authority, the new duties they are to discharge require no tokens of royal prerogative. Sympathy, tender participation in both joy and sorrow, wise counsel in perplexity, enlightenment of ignorance when trouble threatens, need no insignia of authority; open arms and a loving heart are the heraldic bearings of a father

and mother, who have ceased to control or to minister to lives that have found the entrances to "their destined end and way." * * *

All forms of mental and physical disability present themselves to us as we run our eyes down the long, the endless list, that makes up the roster of the retired lives of our fellow men and women. With a grotesque suggestion it brings back the motley crew gathered by the ancient military laws of New England. "General muster" and "general training-day," the germ of our fine State militia service, kept its feeble embryonic life from expiring by the calling together the uninformed men to whom the country looked for help in time of need.

A strange, fantastic gathering it made, and it was a fête-day to the country, ending in the devouring of the best products of the famous housewives, who invariably accompanied their sons and husbands to the field of military instruction. Tall and short, old and young, lined up, and the brigadier-general, in the glory of a uniform and a hat and feather, gave orders to men carrying any and every form of firearm. The stalwart, nobly developed tiller of the fields stood next the little bow-legged shoemaker; the fine, matured figure of a man of fifty touched elbows with the lad of twenty, who was burdened with his clumsy musket. After this fashion this passing summary of retired lives passes before my close scanning eyes. What service shall they do? Are they to be cumberers and hinderers, or are they ready, alert, bent upon keeping every power at its best, and where they do not find a way open before them, determined to make a path in which they shall be neither loiterers nor impediments?

Circumstances cannot control a free mind, nor displacements stop the course of noble thought and generous feeling, and there is no reason why a splendid corps of the retired men and women should not be a noble army of "reserves" keeping every weapon bright and eager for every chance of duty.

Not alone in the great fields of public service and honor may they be found, but under every roof that shelters ageing lives. The wise scholar who is ready to share his learning—the pastor-emeritus, who, set aside from the pleading of the pulpit, unfolds the consolation of faith in his quiet study—the great man of finance, who stays the too-eager hand of his successor—the father who succors and counsels his son—the mother who strengthens her daughter's heart to bear her burdens of responsibility, and folds her grandchildren's hands in prayer—the sufferer who teaches patience from the weary chamber of pain, all belong to those whose names adorn the "retired list" of humanity. C.

WATERLOO.*

[Appeared in the *Literary Souvenir* for 1831, unsigned; but I have seen the original, dated Feb. 1, 1830. At this time it was the fashion with French writers to assume that the English had already been beaten at Waterloo, when somehow the French got "betrayed." See especially the *Relation* of General Gourgaud, published 1818. In the next generation, Victor Hugo invented the "hollow road of Ohain," to account for the French cavalry *not* "breaking the English squares."]

*Apocryphal of some paragraphs in the July *Bookman* about French and Belgian ideas of the Battle of Waterloo, a gentleman writing from Lancaster, Massachusetts, calls our attention to some verses written by Praed seventy-five years ago. Besides being a neat bit of fun, he comments, they show that the Waterloo Myth is of quite a respectable age. The verses are found, with a note by the editor, Sir George Young, in *The Political and Occasional Poems of Winthrop Mackworth Praed*, and in the *Canterbury Poets* selection from Praed.—*Bookman*.

"On this spot the French cavalry charged, and broke the English squares!"
—*Narrative of a French Tourist.*

"Is it true, think you?"—*Winter's Tale.*

Ay, here such valorous deeds were done
As ne'er were done before;
Ay, here the reddest wreath was won
That ever Gallia wore;
Since Ariosto's famous Knight
Made all the Paynims dance,
There never dawned a day so bright
As Waterloo's on France.

The trumpet poured its deafening sound,
Flags fluttered on the gale,
And cannon roared, and heads flew round
As fast as summer hail;
The sabres flashed their light of fear,
The steeds began to prance;
The English quaked from front to rear—
They never quake in France!

The cuirassiers rode in and out
As fierce as wolves and bears;
'Twas grand to see them slash about
Among the English squares!
And then the Polish Lancer came
Careering with his lance;
No wonder Britain blushed for shame,
And ran away from France!

The Duke of York was killed that day;
The king was badly scared;
Lord Eldon, as he ran away,
Was taken by the Guard;
Poor Wellington with fifty Blues
Escaped by some mischance;
Henceforth I think he'll hardly choose
To show himself in France.

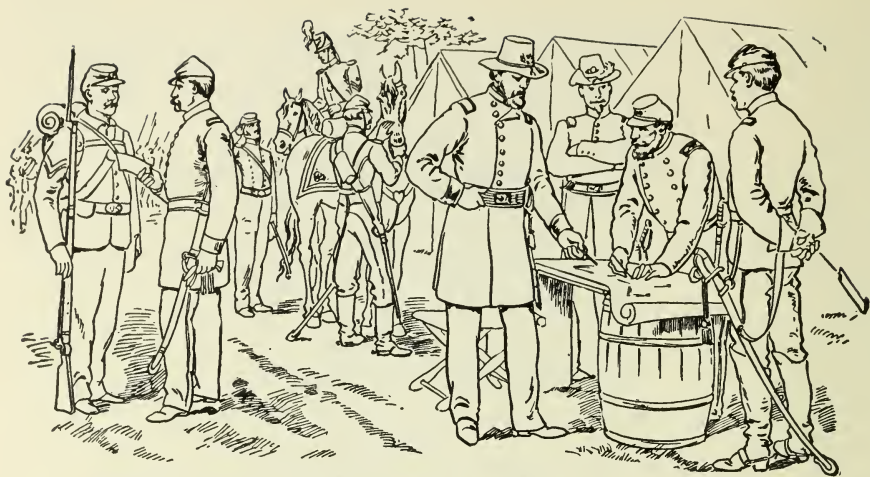
So Buonaparte pitched his tent
That night in Grosvenor Place
And Ney rode straight to Parliament
And broke the Speaker's mace;
"*Vive l'Empereur*" was said and sung
From Peebles to Penzance;
The Mayor and Aldermen were hung;
Which made folks laugh in France.

They pulled the Tower of London down;
They burnt our wooden walls;
They brought the Pope himself to town
And lodged him in St. Paul's;
And Gog and Magog rubbed their eyes,
Awakening from a trance.
And grumbled out, in great surprise,
"Oh, mercy! we're in France!"

They sent a Regent to our Isle,
The little King of Rome;
And squibs and crackers all the while
Blazed in the Place Vendôme;
And ever since, in arts and power,
They're making great advance;
They've had strong beer from that glad hour
And sea-coal fires in France.

My uncle, Captain Flanigan,
Who lost a leg in Spain,
Tells stories of a little man
Who died at St. Helène;
But bless my heart, they can't be true;
I'm sure they're all romance;
John Bull was beat at Waterloo!
They'll swear to that in France.





Comment and Criticism.

“Athletics in the Army.”

Lieut.-Colonel A. C. Sharpe, Thirtieth Infantry.

The remarks of Major Bullard and Captain Hawkins on our lack of system in physical training are just and timely. Field-days, especially as now conducted, are certainly the most irrational feature of our garrison life. They are not only of no benefit to anybody, but they actually result at times in positive injury to participants, and are generally prejudicial to discipline. I have witnessed some of the demoralizing spectacles which Captain Hawkins describes, where officers and men mingled in a howling mob, patting each other on the back, rubbing competitor's legs and yelling in vulgar accord over their champions. And, also, I have left these scenes with serious misgivings, wondering whither we were tending. No wonder, as Major Bullard rather vehemently says, that field-days thus conducted have come to be regarded by most garrison officers as an “infernal nuisance.” Of course this does not mean that athletics and field meets should be prohibited, or even discouraged. On the contrary, if properly conducted they may be wisely utilized to develop a desirable *esprit de corps* and to vary the monotony of soldier life. But they should not be required; they should be wholly voluntary, the same as football, baseball and other sports and games. What we need as an official part of our professional training is not athletic competitions in which only a select few can participate, but rational physical culture—a systematic course of training in which every recruit shall be required to take part. It is not the abnormal development the big

biceps or the exceptional development of the more promising and apt that should be sought for. What we should aim to establish is a system of training for the entire unit. We might adopt a collective figure of merit; and that organization bringing all of its men as a whole nearest to the standard will be the best, even though it should not have a single brilliant performer and could not carry off a single prize on field-day, although the chances are that such a company would always win its share. I am glad to see that the Secretary of War has pronounced views on this subject, and that we may rely on his support for all forms of rational, scientific physical culture, and for the development of a system which will reach down to the most needy man, rather than direct its energies to "trying out" these weaker elements until none but the physically perfect are considered worth while.

Captain Hawkins and others have expressed the opinion that the existing routine of duty, including drills, horse exercise, practice marches and the usual fatigue and guard duty, together with "constant practice in minor tactics, will give the soldier plenty of exercise and leave little room or necessity for further care about his physical development." I am unable to agree with this view. Unhappily, our military reservations are very contracted in area, and it is next to impossible to solve any tactical problem within their narrow limits. All that a command larger than a company can do nowadays is to make a march (with no flankers) between fences and cultivated fields, lucky if perchance they can find a patch of ground, free of rent, large enough to pitch camp on. And as population spreads westward this condition will grow worse instead of better. With the exception, perhaps, of Forts Riley, Sill and a few others, this condition already exists at every post between Plattsburg Barracks and the Presidio. With our long-range weapons and extended deployments we have scarcely room enough to-day in any military reservation to "swing a cat." Before we can complete the simplest maneuver we are at the edge of our domains and trespassing on private grounds. Only last week I went into camp about six miles from my garrison, in defiance of a big sign in green paint to "KEEP OUT!" Yes; marching, riding, grooming, policing, guard duty, etc., all contribute a measure of exercise, but they by no means afford the normal development which a systematic course of physical culture affords. If we intend to make this a feature of our training, as all other armies do, we should take it up scientifically and begin to utilize the beautiful gymnasium apparatus which Congress has been so liberally providing the past three years. Every man on joining his company should be measured and charted by a medical officer and then put through a progressive course suited to his needs, until we reduce his excesses and bring up his deficiencies to approach as near as possible to the normal. At the end of each quarter he should be measured again and his interest sus-

tained by a gradual progression to more advanced work. This course would require perhaps nine to twelve months. After attaining a fair development, attendance should no longer be required, but by all means encouraged. And sluggish men disposed to become adipose and soft should be recalled to the work as often as deemed necessary.

Would the multifarious duties now required of the soldier leave sufficient time for this work? Probably, yes. If we reflect on the many rainy days, the muddy roads and wet drill grounds, the storms of winter, etc., which confine us to the dull monotony of indoor drills we shall probably find abundant time to get in the desired gymnasium training. But if not, then let the recruit course in physical culture take the place of two or three drills per week for the first three months, gradually reducing it as he develops.

It is assumed, of course, that every young officer, all at least under forty years of age, who has not enjoyed the advantage of scientific training at school, or whose chart departs in any details very noticeably from the normal lines, would desire to take the recruit course, or at least enough work to bring up his deficiencies. It would be well, indeed, to require all company officers to undergo the surgeon's examination, and if found lacking in any particular to take the necessary work to correct defects. Every captain or lieutenant should be able to go through any hardship or exposure, and to that end to have the same physical preparation as the men he commands.

If such a course is officially adopted it will fall into place as naturally as company drill or horse exercise; and if *properly conducted* can be made more interesting than either. All this, of course, implies additional work and patient, loyal effort for company officers; but it will pay—it is rational (which our present method is not), and it is the only road to success in physical training.

"An Organic Unit for Machine Guns."

Captain John H. Parker, Twenty-eighth Infantry.

As the author of the experimental organization used at Fort Leavenworth for machine guns, and recommended as the best practicable system of organization at the present time in our service by the Infantry Board, I would like to correct one error in Colonel Barger's timely and valuable contribution on that subject in the last number of the JOURNAL MILITARY SERVICE INSTITUTION.

Colonel Barger says: "It is submitted that the experiment with machine guns now being carried on by the army has been provided for without due regard to the basic facts hereinabove stated." It is this assumption that it is desired to correct.

In the experience of the United States Army there have been several officers who have successfully used machine guns in more or less important operations; notably in the Bannock-Shoshone Campaign, in the Santiago Campaign, in the Philippine Insurrection and at Peking. Of these officers one was a navy officer, temporarily attached for duty with the army; the others were officers of the Regular Army. It is not known whether any of these, except the writer, had made, or has made since, any special study of the requirements of machine-gun service; but the present writer has done so. If Colonel Barger will get a little book on the subject by the writer and read same carefully, he will find all his own arguments and many more elaborated and fortified by historical examples exhausting the subject up to the date of publication. He will also find that the author is firmly convinced that the best theoretical organization for machine guns for our service is an independent corps, with detachments organized into companies; and this for precisely the reasons Colonel Barger has so well stated.

But in originating the experimental organization used at Fort Leavenworth, and subsequently recommended by the Infantry Board as the one best suited for our service, we were not governed by the best ideal organization, *but by the more practical consideration of what we could get.*

It is vastly more important to have the guns and the men to serve them and the officers to command them, than to stand without them until an ideal, but impracticable, organization can be obtained. There are two enormous obstacles against the adoption of the ideal organization, even in the modified form proposed by Colonel Barger. These are:

1. The inertia, if not actual opposition, encountered in the attempt to get any organization whatever, within the army itself. Notwithstanding that the experimental organization has been tested to the complete satisfaction of everybody who has observed its workings, and has been recommended by the Infantry Board and many important and influential officers for adoption, and requires nothing to put it into actual operation except an order by competent authority, yet it has thus far been impossible to obtain even this inexpensive and practical form of organization and instruction, for the simple reason that it has not been possible to get such an order issued by competent authority.

This is all the more surprising when we reflect upon the experience of France through lack of adequate instruction in the use of her mitrailleuses; when we remember that our own experience has so fully demonstrated the value of machine guns that every other great nation in the world has adopted some system of organization and is causing adequate instruction in their use to be given; still more when

we remember that the value of these weapons is well known to many of our highest administrative officers from personal observation in action.

2. The fact is that legislation by Congress would be necessary to effectuate any such system of organization as Colonel Barger has proposed, or any other than that of auxiliary fragments which has been worked out and favorably recommended by the Infantry Board. To any one who knows the difficulty of obtaining any legislation whatever, even for the most urgent public necessities, this one objection blocks the present adoption of any other system than the one we have worked out, which can be organized out of the men and material on hand, without new legislation, and without any expense whatever.

It is earnestly hoped that the time may come, and soon, when this very important detail of military organization will receive adequate attention, and machine guns may be made a subject of real, practical instruction, with a view to their being used intelligently in action. It is self-evident to students of the subject that, theoretically, the ideas set forth by Colonel Barger ought to govern in this work. But it is also apparent to the writer, who has tenaciously held this subject for many years, and is the author of the existing experimental system of organization in our service, that we must creep before we can walk, and must take what we can get before we can expect to get what we want, and ought to have, in the way of machine-gun organization. It is possible to get the proposed experimental system into actual operation, because it depends solely upon executive action, and if we can convince the proper executive authority of the necessity for such action, no doubt the necessary orders will be forthcoming. It is not possible to get the ideal organization adopted at this time, for that would require Congressional action, which cannot be had.

If the proposed experimental organization can be put into operation, we shall at least begin to have some real, practical instruction in machine-gun use, and we shall begin to develop a few trained officers who will know how to use the guns on occasion—which we have not at the present time. Then as our progress advances, if we are right in our ideas, their correctness will become gradually apparent to others who have not made a special study of the subject, and eventually we may expect enlightened action on the subject as a result of greater experience and development.

Therefore, let all who are interested in the subject stand together for the practical application of some real live instruction through the only system practicable at the present time—that of detachments in and of the infantry battalions. It ought to be under the direction of some one man, in order that it may be made vigorous and effective.

Let us fight for that; and let the future development of the idea depend upon what the future may demonstrate to be the necessities of the machine-gun service

"Law as Taught at the Staff College."

Major D. H. Boughton, Eleventh Cavalry.

In the January issue of the JOURNAL OF THE MILITARY SERVICE INSTITUTION General Clous, in an able article, takes issue with Colonel Birkhimer in regard to certain doctrines promulgated in the latter's work on "Military Government and Martial Law." The General invites attention to the fact that at the Military Academy Davis's "Military Law" is in use, while at the Staff College Birkhimer's "Military Government and Martial Law" is the authorized text, and that these authorities differ on certain points of law, a condition to be deplored, as it tends to destroy the uniformity and harmony of instruction that should prevail throughout our military schools.

We know of no science, not even music, where the laws of harmony are so refined that notes of discord are never struck. It is not my purpose, however, to discuss the issues raised on points of law, but to invite the general's attention, as well as that of other officers interested in the Staff College, to the character of the instruction prevailing at this institution in the Department of Law.

We fully agree that instruction should be uniform and certain in our military schools. In fact, uniformity and precision are what we are all striving for in the military service. System is essential to the successful working of any machine so complex as our military establishment, but legal instruction at the Point and at the Staff College cannot be judged by the same standards. At the former the students are yet quite young, almost boys, while at the latter they are men full-grown, mentally as well as physically, and therefore a method of instruction applicable to the one would be out of place in the other.

Because a text-book is in use at the Staff College it should not be inferred that such book is regarded as perfect, and always a correct expositor of facts. Where can such a work be found?

Elsewhere I have explained the theory upon which instruction is given to the student officers of the Infantry and Cavalry School. When these students pass to the Staff College they are treated as men of mature minds, and the method of instruction is broadened, approaching the idea of original research. Text-books are used and are of course sources of information, but they are more of the nature of guides, whereby is secured a uniformity of instruction so necessary

in an institution of this character, where the course is special and the time limited.

The text-books now in use in the Staff College are Black's "Constitutional Law," and Birkhimer's "Military Government and Martial Law," but these are supplemented by discussions of "leading cases" and references to other authorities, and if a mooted point arises the student is generally able to form a conclusion of his own that is quite satisfactory.

In addition to the above, each student officer is required to submit a graduating thesis upon some important military subject, and to solve problems, the correct solution of which may be of use to him in his subsequent career.

The following problem given to this year's class will serve to give some idea of the method of instruction, and what is meant by the requirement of original research.

DEPARTMENT OF LAW,

STAFF COLLEGE

Problem No. 2. Class of 1905-6.

MILITARY RESERVATIONS.

The post of Fort Leavenworth, Kansas, was established in 1827. By executive order dated October 10, 1857, it was reserved and set apart for military purposes, but when Kansas was admitted as a State in 1861 the United States failed to retain jurisdiction over this reservation. By act of the Kansas legislature, approved, February 25, 1875, jurisdiction over that part lying in the State of Kansas was ceded to the United States in the following terms:

"Section 1. That exclusive jurisdiction be and the same is hereby ceded to the United States over and within all territory owned by the United States, and included within the limits of the United States military reservation known as the Fort Leavenworth reservation, in said State, saving, however, to the said State the right to serve civil or criminal process within said reservation, in suits or prosecutions for or on account of rights acquired, obligations incurred, or crimes committed in said State, but outside of said session or reservation; and saving further to said State the right to tax railroad, bridge and other corporations, their franchises and property on said reservation."

1. (a) Are the reservations by the State of Kansas of the right to serve civil and criminal process and to tax railroads and other corporations, inconsistent with exclusive jurisdiction of the United States as understood in par. 17, sec. 8, Art. 1 of the Constitution, and if so to what extent?

(b) Had the reservation been purchased by the United States with the consent of the State legislature, would the saving clause "to tax railroads, etc.," have been binding? Why?

(c) Does the saving clause "to serve civil process for rights acquired, etc., outside the reservation," prevent the State from serving process on the reservation for a *fort* or *breach of contract* committed thereon? Why?

2. December 25, 1874, a soldier shot and killed a comrade on the reservation; the homicide was manslaughter; in what courts and under what laws could the criminal have been tried?

3. Had this homicide occurred a year later, in what courts and under what laws could the criminal have been tried?

4. A civilian employee residing on this reservation was the owner of a vicious dog; he was aware that the animal would sometimes attack people, nevertheless he permitted the dog to run at large, and the latter attacked and killed a child:

(a) Can the owner be punished criminally, if so in what courts, and by what laws will his punishment be measured?

(b) Had a soldier been the owner of the dog, where could he have been tried?

(c) In general what is the law for punishment of offenses committed on a military reservation (exclusive) where no penalty has been prescribed by Congress?

5. A citizen of Leavenworth breaks or opens the fence inclosing the reservation along Metropolitan Avenue and drives his cattle upon the reservation for grazing; can he be punished criminally, if so in what courts and what is the limit of his punishment?

6. Two residents of Leavenworth are driving along Grant Avenue on the reservation; one, through carelessness, collides with and injures the vehicle of the other:

(a) Is civil suit maintainable for damages, if so where?

(b) The driver whose vehicle is injured assaults and severely injures the other; have the Kansas courts jurisdiction of this crime?

7. A soldier stationed at Fort Leavenworth dies; among his effects is found a document purporting to be his last will and testament; it is signed by the deceased, but there are no subscribing witnesses; in the testament he bequeathed, among other things, one-half of \$2000, which he has in bank in St. Louis, to his wife who lives on the reservation, and the other half to his mother who lives in Ohio; if you were his company commander how would you proceed?

Generally, aside from military law, what municipal law is in force on a military reservation?

8. The State of Kansas has the right to serve civil and criminal process on this reservation:

How may criminal process be served for the arrest of the following persons?

(a) A civilian teamster driving along the road on the reservation.

(b) A soldier playing ball on the parade ground.

(c) A soldier at drill with his company.

(d) A person within a government building.

In what manner would civil process be served upon the above persons?

Answers to the above will be submitted not later than March 31, 1906, after which date the problem will be discussed in the classroom. Write answers only, each opposite its serial number, and use paper of legal cap size.

The theory of martial law is not taught at this school from the viewpoint of deciding by what authority it may be declared, but as a *fact* which must be recognized when it actually exists, and treated accordingly, under the great law of necessity.

As a matter of fact the term "declaring martial law" is really misleading under our form of government. Strictly speaking, martial law cannot be called into existence *as a matter of legal discretion* by any department of the Government. The Constitution has given them no such power; but, *as a matter of fact*, its existence can be

recognized and declared or announced by the Government in order that all concerned may conduct themselves accordingly.

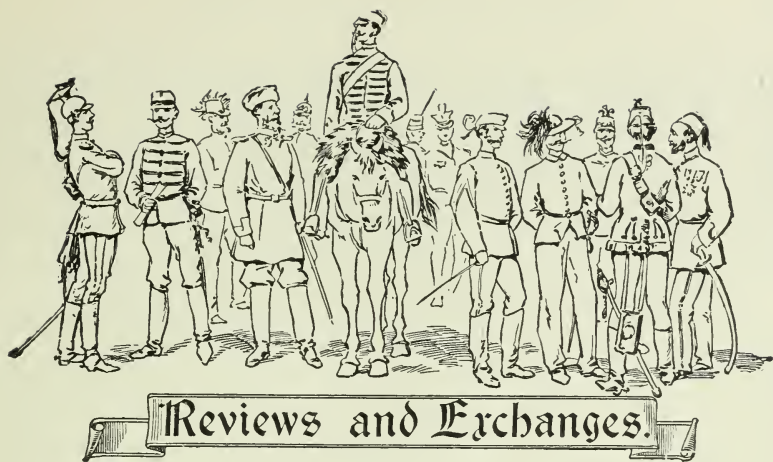
Legally, too, when considered in this light, it would seem immaterial which department of the Government recognized the fact that martial law existed, but as the executive is charged with the execution of the laws, and martial law means a suspension of the same, he will be the one who will first have knowledge of the existence of a state of affairs which we call martial law, and it then becomes his duty to announce or declare the same, and to act accordingly.

Regarded in this light martial law means that the ordinary laws have been forcibly and unlawfully suspended, and that the Government, in order to restore the same, has been compelled to use its strong arm—its reserve power—military force.

In regard to whether Congress is expressly empowered "to provide for the common defense and general welfare" of the country, the general may rest assured that the correct law is taught on that point.

U. S. STAFF COLLEGE. FORT LEAVENWORTH, KANSAS.





Half Century Record of the Class at West Point, 1850-1854.

THE following is the introduction to the biographical notes and tables of the Class Monograph, in preparation by Brig.-Gen. Henry L. Abbot, United States Army.

The class of 1854 was graduated long enough before the Civil War to cause its members, trained in frequent Indian outbreaks and qualified by experience in the field, to serve in grades entailing special exposure on the line of battle. Many of its members held such rank, and the official records show for the class a larger list of killed and mortally wounded in action than for any other that ever left the Academy, except for that graduating in 1841, which lost six graduates in the Mexican War and eight in the Civil War, or a total of fourteen. The class of 1854 lost twelve graduates and three non-graduates in the Civil War; and among the former was Greble, the first officer of the Regular Army to lay down his life in the conflict. Another non-graduate subsequently met his fate in the Modoc War, making a total of sixteen of the class to die from wounds received in battle.

It has been charged against the Academy that its cost to the Government is excessive, since the cadets that fall out by the way are not commissioned in the army, and, consequently, can render no return to the Government for the sums expended in their education, more or less complete. Of the class entering in 1850, having a total of 102 names on its rolls, forty-six were graduated in 1854 and three in 1855, leaving fifty-three who failed to receive the diploma. It has seemed to me to be a matter of interest to trace, so far as practicable, the war records of these non-graduates, and thus to determine whether their military education received at West Point did or did not bear fruit in the great war.

It has been my habit during all these years to preserve any item which came to my knowledge relating to members of the class. In this present study I have sought and obtained similar items from my classmates. The official records of the war, with its admirable index referring to every name contained in any of the many volumes, has rendered it comparatively easy to trace individuals holding rank in

the higher grades. The "Historical Register and Dictionary of the Army," prepared by Francis B. Heitman, in 1903, the "Bulletins of the Association of Graduates," and numerous histories and encyclopedias of the war, have afforded great assistance. Correspondence with the War Department, with the adjutants-general of several States, with the Pension Office, with postmasters at many localities, and with individuals whose addresses have been furnished by the above, has supplied many missing links. The results of the study appear below. While it is hardly possible that errors have been wholly avoided, it is believed that none of serious import will be found.

The West Point record of the class may be summed up briefly as follows: The total number that received conditional appointments, and including twelve turned back from the class above, was 111. Of these nine failed to pass the entrance examination, reducing the true class aggregate to 102. During the four-year course seven resigned, five were dismissed, eighteen failed to pass the first January examination, eight the next June examination, four the second June examination, eleven the third June examination and none the final June examination. The number graduating in 1854 was thus reduced to forty-six, of whom six came from the class above. Of the forty-one who failed to pass the examinations, nine were turned back to the next class and three of them were graduated in 1855. One of the graduates, Levi L. Wade, was so ill that he failed to receive a commission; indeed, he died in September, 1854.

In respect to the non-graduate members the facts, more fully recounted in the biographical notes, may be given briefly in tabular form. As stated above, of the twenty-six known, or believed to have taken part in the war, four lay down their lives in action. These statistics abundantly demonstrate the fact that the non-graduates constitute an educated and precious reserve which can be counted upon in time of need to perform the important duty of training and leading our volunteer armies. The names in italics in the table are those of the officers killed in battle.

Non-Graduate Members, Fifty-three in Number.

Wholly untraced	17—Twelve of them at Academy six months or less.
Died before the war	3—Daniell, Guion, Splane.
Did not take active part	3—Bennett, Fonda, Scott, W. P.
Service doubtful	4—Browne, Jordan, Lashbrooke, Widup.
Attained grade of colonel	9—Black, J. L., <i>Colquitt, Crooks, Drum, Harrington, Hyde, Sherburne, Wood, Wright, T. F.</i>
Attained grade of lieutenant-colonel ..	4—Crawford, Green, Leech, Spratt.
Attained grade of major	3— <i>Brown, S. C.</i> , Kearney, Wilson.
Attained grade of company officer ..	6—Annan, Bursley, Clay, Hayne, Kenan, Montgomery.
Grade uncertain	4—Hollaway, Jesusp, Robertson, Thomas.
Total non-graduates	53

The biographical notes are restricted to individuals not given in full in General Cullum's Register, that is to non-graduates and to those who took part with the Confederacy, except in the case of those killed in battle, which are more fully treated, even on the Union side, than in his register. The happily reunited popular sentiment, both North and South, sustains the little band of survivors who separated

at West Point half a century ago in being proud of the gallant and honorable service of their classmates, whether rendered under the blue or the gray. Indeed, all graduates will recognize that among ourselves the ties formed by four years of such intimacy as exists at West Point were never weakened by the course of events, even when we found ourselves arrayed in hostile ranks. Each side gave the other credit for following the dictates of duty as they appeared to the individual mind and conscience. The deep-seated sectional misunderstanding which led to the war had no place in the old army. Whatever may have existed among the members in boyhood had been eliminated by attrition during the years spent at West Point.

The following tabular summary is based on the statistical tables. Those of the class who served on the side of the Union appear on two lists, one of the regular and the other of the volunteer service. The highest individual rank attained on either is here shown. Fifteen names appear on both lists and twenty-three on only one. The relatively large number in the lower grades on the Union side is explained by the fact that twelve held only their regular commissions. At least seventeen of the class are known to have been wounded, not mortally, some of them several times.

Highest Rank Attained in the War.

	Union Side	Confederate Side	Doubtful	Class
Lieut.-general	1	..	1
Major-general	1	4	..	5
Brig.-general	3	4	..	7
Colonel	13	6	..	19
Lieut.-colonel	4	4	..	8
Major	2	1	..	3
Company officer	15	4	1	20
Not of record	3	..	3
Totals	38	27	1	66

The present status of the class may be summed up as follows: Of the 102 members, ten died before the war; eighteen died during the war; ten have died since in service, and twenty-one in civil life, making a total of fifty-nine deceased. Information is lacking respecting twenty-four. Nineteen are known to be living, of whom nine are in civil life and ten in service, all of the latter being on the retired list with the rank of general officer. The following are the latest addresses of the former:

Chapman, Alfred B.,	Chapman Place, San Gabriel, Cal.
Crooks, William (Colonel)	25 Sherburne Ave., St. Paul, Minn.
Fonda, Peter	101 Fage Avenue, Syracuse, New York.
Green, Wharton J. (Lieut.-Col.)	Fayetteville, North Carolina.
Haynes, Lawrence B. (Captain)	Woodville, Wilkinson Cy., Miss.
Hyde, Breed N. (Colonel)	P. O. Box 66, Pottsville, Penn.
Lee, G. W. C. (Maj.-Gen.)	Burke P. O., Fairfax County, Va.
Lee, Stephen D. (Lieut.-Gen.)	Columbus, Miss.
Montgomery, James G. (Captain)	Augusta, Georgia.

H. L. A.

Evolution of the Constitution.*

THE veteran lawyer, statesman and diplomat, the Hon. John A. Kasson, published a second edition of his work on "The Evolution of the Constitution of the United States of America," to which he added a "History of the Monroe Doctrine."

The original work was written by request of the Constitutional Commission under whose auspices the first centennial of its foundation was celebrated in 1887, at Philadelphia, being part of the two memorial volumes, in large octavo, and fully illustrated, in a form and at a cost precluding popular circulation. The new edition is published for more general circulation and especially for the use of students of constitutional law.

The author in order to make a complete presentation of this subject begins with a recital of the conditions, preliminary to the "Confederacy," followed by a statement of the infirmities and ineffectiveness of the "Articles of Confederation" and the successive steps for the calling of a general convention to provide a substitute government, and winds up with an account of the manner in which that general convention accomplished the formation of a nation.

The leading clauses of the Constitution are considered separately, and the great points of the debate connected with each one are given.

This interesting volume makes prominent the frequent use by the delegates of the Constitutional Convention of the terms "nation," "national government," "national laws," etc., justifying the belief that the convention intended to organize a nation and not a mere confederation of States. On the subject of State sovereignty the author brings forward the utterances of Patrick Henry, namely: "The Constitution is the severance of the Confederacy. Its language 'We the people' is the institution of one great consolidated national government of the people of all the States, instead of a government by compact with the States for its agents." In the matter of secession an interesting item is found in the discussion of the ratification of the Constitution by the convention of New York; the opponents of ratification, like their compatriots in Virginia and Massachusetts, made propositions for future amendments to the Constitution, one of them even professing to ratify, but reserving the right to secede if the amendments should fail. Hamilton came forward and read an opinion of Madison, that such a condition would vitiate the ratification, affirming that "the Constitution requires an adoption *in toto* and *forever*," thus early crushing the theory of secession.

The edition under consideration is a valuable contribution to the literature upon the Constitution; it is interesting to the lover of history, useful to the busy man who has no time for elaborate research and to the student of public law.

In the concluding pages of this work the author gives a short "History of the Monroe Doctrine," which is concise and accurate, and a welcome addition to a work on constitutional law, the Monroe Doctrine having acquired so much authority that it has become almost equal to a provision of the Constitution.

J. W. CLOUS.

*The Evolution of the Constitution of the United States of America and History of the Monroe Doctrine. By John A. Kasson, LL. D. Boston, Houghton, Mifflin & Co., 1906.

A Staff Officer's Scrap Book.*

SIX or seven years ago one would expect to find in a book written by a British officer the most conservative expressions of opinion on the art of war; but it is only necessary to read this "Scrap-Book" to realize what a revolution has been brought about by the war in South Africa. Up to that time the Germans were recognized as the leaders in military science, and the British were half a century behind them. But now their more intelligent officers have learned the lesson that was beaten into them by the Boers, and have won the respect of the military world by the manner in which they have improved upon it, while the armies of Continental Europe have hesitated long whether to profit by the experience of the Islanders or wait for a practical repetition of the same lesson at their own expense.

The "Scrap-Book" is valuable to the military student not only because it is the first account of the Russo-Japanese War by a military attaché who followed the armies in the field, but especially from the author's military ability and from his wide experience on other fields. His lively style makes the book very attractive to the general reader, and the maps are among the first authentic maps of the battle-fields that have been published.

The scene is with Kuroki's army, and the time from the 1st of April to the 31st of July, 1904.

The first chapter describes the general's first impressions of the Japanese. Comparing them with the Boers he says:

Up-to-date civilization is becoming less and less capable of conforming to the antique standards of military virtue, and the hour is at hand when the modern world must begin to modify its ideals or prepare to go down before some more natural, less complex and less nervous type. The Boers furnished one example of those primitive peoples whose education and intelligence had just reached a stage at which they could avail themselves of modern rifles and guns.. * * *

This is no time for any civilized nation to play pranks with its army, or to gamble at confidence-trick games with its rivals at The Hague. Disarmament talk from the mouths of the masters of India would be supremely ridiculous were it not so dangerous.

The force of the Russian Army, as against other European nations, lies in her private soldiers, who are peasants still in touch with nature—robust, hardy, patient and stolid. But they have neither the habitude of war, nor, except perhaps when fighting in defense of their hearths and homes, do they possess that inborn vital spark of material ardor which will compensate in battle for many defects in character or physique. Least of all are they endowed with that independence of character and power of acting on their own individual initiative upon which modern war will henceforth make such high demands.

The Japanese soldiers are equally peasants, equally stolid and unaffected with nerves. There the resemblance ceases; for our allies are warlike by taste and tradition, and upon the patriotism, which they have absorbed with their mothers' milk, their government has been careful to graft initiative, quickness and intelligence. This is accomplished in the schools, which keep the soldierly virtues in the forefront of their curriculum.

But it should cause European statesmen some anxiety when their people seem to forget that there are millions outside the charmed circle of Western civilization who are ready to pluck the scepter from nerveless

*A *Staff Officer's Scrap Book during the Russo-Japanese War*. By Lieut.-Gen. Sir Ian Hamilton, K. C. B., London. Edward Arnold, 1906, 8vo, pp. 362, with illustrations, maps and plans.

hands so soon as the old warrior spirit is allowed to degenerate. It is strange to read of conferences discussing the desirability of peace, and urging the repression of the military spirit, just as if there was no one in the world but themselves; just, in fact, like sheep discussing watch-dogs, oblivious to the wolves. As if, indeed, Asia and Africa were not even now stirring uneasily in their sleep, and dreaming dim dreams of conquest and of war.

Providentially, Japan is our ally, and not one, if I may presume to judge so early, who will prove ungrateful. England has time, therefore—time to put her military affairs in order; time to implant and cherish the military ideal in the hearts of her children.

What civilization may have stolen, perhaps inevitably, from the old semibarbarous warrior spirit, she should have surely made good by quickening a more enthusiastic patriotism, and giving the young generations an ideal for which they would lay down their lives.

With our education anti-military, and our army organized on a basis of wages, we are marching straight in the footsteps of China, who 1000 years ago became so clever as to see that war was a relic of barbarism.

All these remarks coming from a British officer who speaks with pride of his little allies just emerging from barbarism are very suggestive from several points of view. If the Russians profit as much from the ordeal through which they are passing as the British have from the war in South Africa, the Russian Army still in touch with nature, robust, hardy, patient and stolid, may yet be a match for the hordes of Asia now stirring uneasily in their sleep and dreaming dim dreams of conquest and of war.

Of the Battle of Yalu, Gen. Hamilton says:

1. The strength of Kuropatkin's field-army was less than half of what it was supposed to be by the outside world.

2. He was unable to send as much as one-third of this field-army to the Yalu.

3. Less than one-half of the Russian troops actually on the Yalu were, thus far, concentrated opposite the concentrated Japanese Army to dispute the passage of the river.

4. The handful of men who were actually on the ground prepared to fight what may well turn out to have been one of the decisive battles of the world, were not generally considered Russia's best troops, or a fair representative sample of her army, although certainly in the actual event they tried most gallantly to do their duty.

General Hamilton's description of the Battle of the Yalu differs somewhat from those of the correspondents, which were based on the published reports of the Japanese. He says:

The Japanese scheme of operations had contemplated a containing action in front of the guards and Second Division, while the Twelfth Division turned the enemy's left. By crossing the Aiho, however, the containing part of the line had come within decisive range and had to go on, go back or perish. They went on, and carried the breastworks without waiting for the Twelfth Division to make itself felt.

It is, however, hard to estimate how far it may have been felt, and reports from other sources seem to suggest that the Russians did not retain their position as tenaciously as if the Twelfth Division had not made its turning movement.

Of the artillery fight he says:

The certainty that seventy-two guns, some of them twelve centimeters, would silence the sixteen field-guns north of Chiuliencheng and Suribachiyama detracts from the interest of the contest and tends to obscure, rather than illuminate, the archaic artillery tactics of the Rus-

sians. None the less, it is impossible to refrain from considering what might have happened had they withdrawn their artillery positions in the first instance to points in the higher hills in rear, where they would have been themselves out of shot of the Japanese guns, whilst with their longer ranging weapons they could still have covered the Yalu River and the Aiho, as well as the intervening islands, with a sufficiency of shrapnel. It would not then have even been necessary for them to conceal their positions or use indirect fire.

The infantry combat, like that of the artillery, was too one-sided to yield much of a harvest to military criticism. The fact that 40,000 men forced a passage in the face of 6000 tends to divert attention from the faults of the weaker side, by the mere fact that the success of the Japanese was practically inevitable, however wise the dispositions and tactics of the defenders might have been.

Civilians may be dazzled by the brilliance of Kuroki's achievement, but soldiers must be more critical. On April 25th the Japanese stood, and knew they stood, in overwhelming force, only separated by two rivers from their enemy. Nothing, however, would induce them to make the plunge until they had completed their most minute preparations. Let the Germans admire this if they will; it is not the principle by which Marlborough, Napoleon or Lee won their reputations. On the day they meet a first-class general this passion for making all things absolutely safe may be the ruin of our careful little friends.

In General Hamilton's criticisms of the operations on the Yalu and elsewhere he expresses interesting opinions about modern warfare:

The Russian soldier is the worst shot existing in any great army in Europe. This came within my cognizance whilst I was commandant of the Musketry School at Hythe. He gets but few rounds for practice, and these are fired mostly in volleys. A volley is the negation of marksmanship, as far as the individual is concerned, for he never knows, and never can know, whether his bullet was one of those that missed, or one of those that hit, the target. Moreover, the volley method is incompatible with the attainment of the maximum rapidity of fire possible with the modern magazine rifle, for each man has to wait until the slowest soldier is ready before he can come to the present, and even then cannot fire as soon as he has drawn a bead on his object, but must pull the trigger when his commander thinks he has done so, which is a very different matter. The volley is not only the negation of accuracy, but also the negation of individualism and wide extensions.

Of the glaringly conspicuous nature of the Russian infantry trenches he says:

No artillery could have desired a better mark. Only one thing could have compensated for the entire lack of concealment, namely, that complete protection which a plain breastwork does not give to the most vital and the most sensitive part of a man's frame, his head. There was no attempt made anywhere to provide head cover. But it is not possible to blame the Russians for this omission, for nowhere on the Continent are soldiers taught the value of loopholes as a supplement to field entrenchments.

As for the cavalry, Russian and Japanese, they did nothing, which seemed very much to surprise some of my friends. To one who holds, as I do, that the day has passed when cavalry of Frederick the Great type can hope to produce any effect on the field of battle, this was not surprising, but quite natural, and just exactly what was to be expected. Cavalry trained to act as good solid infantry when dismounted might have done much, either on the Russian or Japanese side, at the Battle of the Yalu, and afterwards; but even the warmest advocate of shock tactics and swords must allow, when he follows the course of events on

this occasion over the actual ground, that there was no place or opportunity where the horse could possibly have been of any value except to bring a rifleman rapidly up to the right spot.

One of the very first lessons impressed upon us in South Africa was that guns which are palpably overmatched in the preliminary artillery duel should be prompt to recognize the fact, and withdraw from the unequal combat before they can be put definitely *hors de combat*. If the guns cannot be withdrawn, then, at least, the personnel can be drawn back under cover until the storm has passed. It is an exceptional thing for a gun in action to be struck by a shell so as to be put out of action, and a battery may be left exposed to the fiercest bombardment, even with high explosive shells, and be not a pennyworth the worse after half an hour of it.

If "after the Yalu" the minds and energies of the generals and staff were fairly used up, then, I believe, we have here the secret not only of this, but of many another strangely inconclusive ending to a very decisive initial success.

The account of the march from the Yalu to the mountains, and that of the Battle of Yashirei are also interesting, and the interval is illustrated by a narrative of the general's experience in writing.

It is much to be regretted that the scope of his work did not include the great battles that followed.

W. R. L.

Revolutionary Letters.*

"**L**IFE and Letters of Samuel Holden Parsons, Major-General in the Continental Army and Chief Judge of the Northwestern Territory, 1775-1789," is a volume of the greatest historical interest to the student of narratives of the stormy events of the time of the Revolution of the American Colonies.

It is edited by Charles S. Hall with signal ability, and is, in fact, a history of the operations of the Connecticut line during five years of constant scouting, and to the majority of the commanding generals five years of anxiety and toil.

Parsons was engaged in every operation on the line of the Hudson. He was given the task to fortify West Point; he was also responsible for the recruiting of the army under him, and it is due to his energy and zeal that Connecticut came forward with her quota.

The editor has arranged the letters from General Parsons' letter book—the order book of his adjutant, David Humphreys, letters obtained from collectors, and the extracts from the papers in the possession of the State Department, Washington—in such a skilful manner that the volume is read as a continuous history of the Revolution, and one is brought into immediate relations with the writers of the letters, and these writers are the men who guided the operations of our armies.

A recent notice of the book calls attention to the fact that there are quoted ninety-five letters which passed between Parsons and Washington, five between him and John Adams, and many between him and Governor Clinton, General Heath, General McDougall Senator Johnson, Colonel (and brevet-brigadier-general) Samuel B. Webb, John Hancock, Alexander Hamilton, Generals Gates, Greene and Putnam. These letters alone would give to the work a rare

* *Life and Letters of Maj.-Gen. Samuel Holden Parsons.* By C. S. Hall. Binghamton, N. Y. Otisningo Pub. Co., 1906.

value, but the author has skilfully introduced them all in his interesting and able history of that period of the Revolution, and as one reads the book becomes fascinating, and interest in the story unflagging.

We do not find that it is claimed for General Parsons that he was the ablest general, or even a great general; but we do feel, after studying this work, that we are brought into sympathy with an active, useful general, a sincere, wise and prudent patriot, a man holding the confidence of his Commander-in-Chief, a man who could endure even the shameful neglect of a timid Congress, the early suggester of the "Continental Congress" (*i. e.*, 1773. See letter to Sam'l Adams), the man setting on foot the expedition to Lake Ticonderoga, an original thinker and a statesman by instinct.

It is a valuable addition to one's Americana. It is a charming book of reference. It is a more than usually satisfying book and it is very properly claimed to be a distinct and valuable contribution to the history of the American Revolution.

SECOND CORPS.

The Real Triumph of Japan.*

THE Real Triumph of Japan," by Maj. Louis L. Seaman, is a work of the vigor, simplicity and directness of expression characteristic of all the writings of this author. The narrative and descriptions of his two visits to Manchuria—his ninth visit to Japan, I believe—during the recent war are not only entertaining, but his grasp of the situation and revelation of the preparedness of Japan, to which President Roosevelt has recently directed attention of the army and navy, make this book of value to every officer of the army and profitable in the study of how results are obtained.

Major Seaman traveled as a private citizen, and is thoroughly conscientious and impartial in his investigations of every possible phase of the medical system in the field and hospitals, solely that our country might have the benefit of his observations and be prepared in the event of war. His account may well assume national importance when we realize the meaning of the "conquest of the silent foe," not in the stamping out of preventable disease, but in conquering and eliminating it—in truth, preventing its entrance.

Fortunately, Major Seaman does not generalize in his statements, but incorporates incontestable statistics. Longman's Tables show that for nearly 200 years in conflicts of any great duration, at least four men on an average have perished from disease to every one from bullets. In the Boer War there were 63,644 invalidated home by disease to 8221 returned on account of wounds (p. 99). The author quotes from a communication of the surgeon-general of our army, Vital Statistics (p. 288) for 1898, showing that deaths from battle casualties were 293 and from disease 3681, or about fourteen from disease to one from casualty, and that of these deaths there were "in the United States (camps, etc.) from casualties none, and from disease 2649." These startling figures, and the reverse record made by the Japanese of only one death from disease to four from battle casualties, are, indeed, food for serious thought. He gives the recorded losses

**The Real Triumph of Japan.* By L. L. Seaman, M.D. New York, D. Appleton Co., 1906.

from February, 1904, to May, 1905, and adds that to question their accuracy would be a reflection on the honor of the Japanese Army officials, viz.:

Killed and died from wounds	52,946
Died from all diseases.....	11,992

Four deaths from bullets to one from disease. "In other words, nearly four and one-half men died from bullets to one from sickness—almost exactly reversing the figures in former wars," and this was *the real triumph of Japan*, for in their war with China in 1894 they lost about the same average as we did during our Civil War, nearly three from disease to one from bullets. But they recognized that the silent enemy—disease—must be overcome in the inevitable struggle with Russia. How well they succeeded, the record attests.

We cannot all become medical students, nor is it desirable, but merely reading this volume will give all officers an insight into the study of military sanitation and hygiene, and better equip them for the care of the health of their men, for the surgeon alone cannot combat this difficult problem, but must have the active co-operation of every officer of the line.

There have been doubts expressed that examination of the water along the line of march was made, or even possible. I quote from the author.

"A water-testing outfit goes with every sanitary detachment, and every foraging and scouting detachment is accompanied by a medical officer who makes an examination of the water to be used by the troops. Wells are usually placarded with a sign describing the character of the water, whether fit for drinking or otherwise, for the guidance of advancing troops. * * *

"The first hygienic precaution taken as the Japanese pushed the Russians back toward the north was to examine the water along the line of march and at every camping place, whether it was to be occupied for a few days or for weeks. It was no mere perfunctory examination of wells and streams."

With the retrospect of the Japanese War and their marvelous preparedness before us, it may well be asked what we are doing in extending knowledge of the vital subject of preventable disease in time of war or in preparedness, or will we await the call "To Arms!"

J. W. P.

Auxiliary Officer's Handbook.*

"THE Auxiliary Officer's Handbook," by Captain R. F. Legge, the author of that interesting work "Mainly about Shooting," is a small volume in the Gale and Polden Military Series, which of itself is an evidence of merit. This book is written for officers of the British auxiliary forces, but is by no means devoid of interest to other military students. The book consists largely of lectures, delivered by the author when he was serving as adjutant of a volunteer organization, and is based on official government publications. Part I contains lectures on field training; Part II, on various subjects, such as musketry, field firing, framing orders, the war game, field

**The Auxiliary Officer's Handbook, Etc.* By Capt. R. F. Legge. London, Gale & Polden, Ltd. 1905.

sketching and map reading, first aid, etc.; Part III consists of chapters on subjects pertaining to British officers.

While the book makes no pretense of literary merit, yet it is clearly and concisely written, and if full of useful information from cover to cover. It is especially recommended to National Guard officers.

J. A. S.

Musketry Fencing.*

I HAVE read this work with especial interest; certain parts of it appeal to me strongly, and I appreciate very much the care and thoroughness shown in its preparation. The authors have the correct idea as to the proper method to be employed in teaching bayonet exercises, and therefore they condemn the old method, too generally followed, of holding the soldier in a constrained position, executing the movement by the numbers and listening to the oral explanations and descriptions given by the instructor.

The necessary skill in the use of the weapon will depend principally upon the number of times the soldier performs the different exercises. If the drill hours are to be constantly taken up, chiefly in oral explanations, it must follow that much valuable time will be lost, and it will require a longer period to properly prepare the soldier in this important duty. These remarks apply with equal truth to instruction in the "Manual of Arms," "Butt's Rifle Drill," and the "Setting up Exercises." The slow and lifeless execution of all these movements by the numbers, and with little practical illustration by the instructor, has the natural and inevitable result of making the soldier sullen, stubborn and dissatisfied, and consequently slow to learn.

The soldier feels that his instructor either does not understand how to instruct him properly, or that he, the soldier, is being punished for some reason. It is believed that this practice of much explanation and little practical instruction in the teaching of these different military exercises dates back to the drilling of new cadets at the Military Academy by other cadets only a little older in the service, the instructors mingling with the drill a good deal of hazing which cannot be easily detected, but which consists in holding the beginners in constrained positions unnecessarily long and very often.

In old times this feature of hazing certainly was practiced, and it seems hard for many to realize that a better method exists which, however, entails more work and less talk on the part of the instructor. The old method, thus condemned, supplies too many company officers who are not expert in the actual handling of the weapon, who therefore substitute explanation for practical illustration, and it follows naturally, then, that the enlisted man is not properly instructed, for the drill sergeants, too, will employ the same drill methods which they observe are used by their own company officers.

The writer has for many years closely observed the various drill methods and speaks of what he has seen. The handy little book presented us by the authors contains a very elaborate system, which provides for instructing the soldier in the use of the weapon left-

**Manual of Bayonet Exercises and Musketry Fencing*, by Capt. Herschel Tupes, First Infantry, and Sergt. Sylvester Poole, First Infantry

handed as well as right-handed, and it furnishes many valuable explanations and suggestions regarding the struggle between opponents both trying to use the bayonet. A number of movements which were formerly contained in our "Upton's Infantry Tactics" are again explained; some of these movements are undoubtedly good, while others are of much less value. The same remark will apply to quite a number of movements which are new to the writer. While the work thus presented in its present form must undoubtedly be of great assistance to the student and to the man who is endeavoring to make himself an expert in handling the rifle with bayonet, it is not what we need as a text-book and as a part of our drill regulations for use in instructing our infantryman. Drill regulations should contain nothing that is not practical, practicable and reasonably easy of instruction in the time which can be allowed for the purpose.

Practically half the text before us is devoted to the use of the rifle and bayonet "in left guard." It is not believed that we have sufficient time to allow this class of instruction to make it advisable to thus double the amount of time and labor already given it. For that reason it is not believed that we can afford to give any time to instruction in the use of the bayonet "in left guard."

And the *carte parries*, and the thrusts from them, which our Drill Regulations of 1891 very properly left out, should remain unused by the soldier who has not time to learn them sufficiently well to justify his instruction in their use. However, some of the old parries, discarded in our more recent drill regulations, and a number of others that it is believed were never in the old regulations, are believed to have sufficient value to warrant their instruction to our men, and these movements are given in the little volume presented us by Captain Tupes. For instance, we have a new "butt parry"—for use against "butt to front"—and "right" and "left head parry" against saber stroke, "high tierce parry," "long thrust," "long lunge," "right short thrust," "high" and "low tierce thrust"; all of which are worth instruction.

Much valuable information is contained in the part of the work called "Musketry Fencing," which explains the parry to each thrust, and the different methods of attack not heretofore given in our drill regulations—the feints, decoys, chanceries, etc. But, it is believed that it is more natural in fencing exercises that each man's bayonet should bear lightly to the *right*, instead of to the left, against the corresponding portion of the opponent's bayonet, as taught in the manual before us. The first position of "engage" was thus taught at the Military Academy thirty years ago, and it is believed to be still superior to the one recommended by the authors.

The old "disengage" is also believed to be better than the one before us. The old "engage" and "disengage" make it natural for one to thrust in tierce, while the "engage" and "disengage" given us in the work under discussion make it more natural to thrust in *carte*. It requires a much more skilful man with the weapon to execute a good thrust in *carte* than in tierce. The "butt to rear" of our Drill Regulations of 1891 is considered to be superior to that explained by the authors.

The "Manual of Bayonet Exercises and Musketry Fencing" is a valuable addition to our military library, but it is not suitable, in its present form, for use as part of our drill regulations.

We have now several separate manuals for instruction of our men in the various branches of our military athletics. These little books

are not part of our system of drill regulations to the extent that instruction in any particular part of them is made compulsory like instruction in our drill regulations for the different arms of the service.

But the writer has had inspectors ask to see his men do the bayonet exercise and the music drill, *i. e.*, the first set of exercises given in Butt's "Rifle Drill," and he has no doubt that, if the post he commanded had been in a cold country like North Dakota the different exercises in the use of Indian clubs and dumb-bells, and some calisthenic exercises would also have been required. Then, for the proper instruction of our men in these different branches of our military athletics, a number of copies of several different text-books may soon have to be kept on hand, and in each book only certain parts will be selected for use, it being impracticable to attempt instruction in all of them. And at no visit of the inspector will the company commander feel sure as to what the inspector will ask of his men in athletics. The result will be much unnecessary work by the conscientious, hard-working officer, and a slurring over of everything by the perfunctory officer, whose heart is not in the work and who seizes on the reasonable excuse given in the multitude of things apparently required and impossible of instruction as a complete whole.

It is respectfully submitted that it would be a perfectly feasible and satisfactory scheme to prepare one small volume to be called "Military Athletics," or some other suggestive title, and containing ample explanation, description and diagram of each exercise in calisthenics, including the use of Indian club and dumb-bell, the first set of exercises in "Butt's Rifle Drill", and all necessary and useful bayonet exercises and fencing. The suggested text-book should also contain a select number of exercises showing the use of the foil and broad sword, giving all the parries and thrusts, feints, attacks, etc., that can be taught in a reasonably short course of instruction. Such a book, after being well prepared and carefully passed upon, could, with great advantage to the army, take the place of all the various manuals and pamphlets which we are expected to have and teach. Instruction in the new system of military athletics should then be made compulsory, and all other similar instruction forbidden. In the preparation of such a work the endeavor should be to include therein only such reasonable and health-giving exercises in calisthenics as should be made compulsory.

Equal care should be used in the selection, from the multitude of exercises with rifle and bayonet, foil and broad sword, only those which would not only be useful to the man of average expertness in the use of the weapon, but which could be easily taught by the average drill sergeant. Any individual who gets up such a book would be put to much expense for its preparation and publication.

The army is under great obligations to the authors of the "Manual of Bayonet Exercises and Musketry Fencing," but the contents of that work cannot be accepted as a whole, in a system of compulsory instruction, any more than can similar use be made of the works of Captain Butts and Captain Koehler. But a great deal of this book can, with advantage to the army, be embodied in a text-book in "Military Athletics" like that just described and recommended.

Infantry Drill Catechism.*

AT first blush, the reprint of the Drill Regulations, as answers to questions prefixed to paragraphs, would seem to be superfluous. Nevertheless, a use of this book clearly shows that it is a great aid to the student in fixing details in his mind which would not be emphasized, but for the pause which the question brings, followed by the response. The book is a model to teach a non-commissioned officer how he should study any regulation. C. E. L.

Guide to Military History.†

THE present volume of this interesting and important work, treating of the Peninsular War, 1808-1810, is called Part I, which leads us to suppose, and hope, that there is more to follow. The book will be heartily welcomed by those who wish to acquire a knowledge of the history of important campaigns, and who have neither time nor opportunity to wade through the great mass of more or less valuable matter which has been written about most of them.

Perhaps the best way to indicate the scope of the present volume is to quote an extract from the *British Mail*, published in the preface of the book itself.

"It gives the salient points in the various campaigns, and particularly in the special campaign, very clearly and concisely, and yet in a readable form. Strategical and tactical examples and deductions * * * are fully dealt with, while the numerous notes appearing on every page of the book, and the valuable hints on drawing sketch map of theaters of operations and battle-fields should prove most helpful to the student.

The special feature of the book is perhaps the excellent maps, on which are very clearly shown in colors the various positions of the troops, direction of marches, etc., a distinct saving of time and labor to the reader, as it enables the complete situation to be seen at a glance."

The author's declared object is to "act merely as a guide," and he bases his outlines mainly on the classic works of Napier.

The book, originally written for British officers taking their examination for promotion, cannot fail to be of value and interest to students of military history, and to all such it is cheerfully recommended. J. A. S.

The Story of Our Regiment.‡

THIS is a history of the 148th Pennsylvania Volunteers, edited by the adjutant of the regiment, J. W. Muffly, and contains sixty or seventy stories and narratives of service, which must be intensely interesting to the survivors of the regiment.

Gen. James A. Beaver writes graphically of the enlistment, assignments and field-service of his regiment, and truthfully claims for it a

**Catechismal Edition, Infantry Drill Regulations*, U. S. A. Brig.-Gen. William F. Spurgin. U. S. A. Franklin Hudson Pub. Co., Kansas City, Mo.

†*Guide to Military History for Military Examinations*. Part I. By Capt. G. P. A. Phillips. London, Gale & Polden. 1905.

‡*The Story of Our Regiment*. A History of the 148th Penna. Vols. Adj. J. W. Muffly, editor. Des Moines, 1904.

prominent position among the best of fighting regiments in the Army of the Potomac.

It served in the First Division of the Second Corps.

Joining this corps in time to be engaged at Chancellorsville, May 1 to May 5, 1863, it participated in thirty-eight engagements and was actively engaged in the pursuit of Lee up to April 9, 1865. In this period of two years it had won the distinction which only a well-disciplined veteran-fighting regiment could win in the Second Corps.

From the preface we find that it is listed by Fox in his "Regimental Losses" as one of the leading 300 fighting regiments of the 2047 regiments of the Union Army. It is No. 30 in the list of forty-five regiments that had 200 and upward killed in battle, and this after only two years' service.

General Beaver was a fighting colonel and a just and strict disciplinarian. His influence with his men was paramount. The care he took in the instruction of his regiment, coming to it in August, 1862, from the Forty-fifth Regiment of Pennsylvania Volunteers, where he had won a reputation for courage, energy and high military capacity, insured a brilliant and a successful career to his new command.

But the book must be read to be understood. It is a soldiers' book—full of soldiers' stories, and as the old soldier reads what his brigade commander, his colonel, his adjutant, his chaplain, his surgeon, his captain, his lieutenant and his fellow soldier has to tell about those days of glory and patriotism and hard fighting, and at times, suffering, his pride in his old regiment, his love for his brigade, his admiration for his old fighting corps will all be aroused, and he will indeed "fight his battles over again."

The book tells often of brigade marches and actions, and at times furnishes important information to the historian of the Civil War giving, when needed, corroborative testimony in regard to positions and daily movements from witnesses who "fought there"—testimony often eagerly sought when there has arisen conflict in regard to the positions, and even in regard to the presence, of regiments in certain actions.

SECOND DIVISION, SECOND CORPS.

Moral and Patriotic Aspects of War*

COLONEL EDWARD E. BRITTON, National Guard of New York, delivered under the above title, an address before the convention of the officers of the National Guard of Maryland at Baltimore, on February 14, 1906. This address has been printed for distribution to the members of the United States Senate and House of Representatives, the military authorities of the States and of the United States and the newspapers throughout the country.

The author has been distinguished for years as a thorough student of, and forcible writer upon, matters pertaining to the organized militia. His address is a valuable contribution to the literature upon that subject; it shows much thought and research. The object in view is the advocacy of more liberal appropriations by Congress

*The Moral and Patriotic Aspects of War and the Relationship of the Organized Militia to the Military Power of the Country.—By E. E. Britton, Colonel N. G. N. Y., 1906.

for the maintenance of the organized militia in order to increase the strength of the same, with a view of passing annually to the reserves about 100,000 "efficiently trained citizen soldiers."

Passing over the historical and philosophical part of the address, and the argument for the necessity of the United States preparing an efficient force either to preserve peace or wage war, we come to the point where the author maintains that "our present system is as nearly correct in principle as can be had under our form of government, and there remains only the work of perfecting details and carrying it out to the full in practice. The regeneration of the militia as a national institution, it is claimed, began with the Act of 1903, and that by following out, honestly and faithfully, the original provisions of the Constitution in regard to the militia, under which this act was passed, we shall have in course of, time an adequate number of efficiently trained citizen soldiers in addition to our Regular Army.

The author maintains that for sufficient preparation we should be sure of our ability to put in the field without delay 500,000 trained soldiers properly organized and equipped; but he says that on account of the enormous expense we could never in time of peace attempt to maintain a permanent establishment of that strength and that it would be suicidal to depend upon levies of untrained men. The next course, therefore, he says, is to increase the strength and the efficiency of the organized militia, this to be brought about by an increase of the federal appropriation for the militia. In connection therewith, it is maintained that experience has shown that "a finished citizen soldier can be had at an annual cost of about \$50." It is shown that the average expenditure per organized militiaman throughout the United States is about \$32.04, of which the United States pays \$8.76 and the remainder is defrayed by the State authorities. It is the author's judgment that this ratio should be reversed and that the United States should contribute several times its present annual appropriation of \$1,000,000. He states that to support an additional 10,000 regular soldiers would cost not less than \$7,000,000 per annum. "Adding," he says, "this sum to the present State and federal appropriations would give us a force of nearly 200,000 of the most efficient kind of citizen soldiers. The cost of 20,000 regulars would give us over 300,000 of the same kind. Which would be of greater value to our military strength? The 20,000 regulars would discharge annually into the citizenship of the country as a reserve say 7000 professional soldiers; in ten years 70,000. The 300,000 would discharge annually into citizenship of the country as a reserve approximately 100,000 efficiently trained citizen soldiers; in ten years one million. If we cannot have both, I must express my honest opinion that the latter proposition is the more valuable."

The question suggests itself whether the author is not too sanguine in his estimate of the increase in numbers of the organized militia if the principal part of the burden of an adequate appropriation were borne by the United States; and further, even if the United States should furnish the desired funds whether under the present methods of instruction of the organized militia, with its limited field-service, "efficiently trained citizen soldiers" could be produced who would stand the test of the requirements of modern warfare.

Colonel Britton's address is worthy of serious consideration; he makes an honest attempt in pointing out the way under our traditions, institutions and laws to provide, in addition to our Regular

Army, a force for adequate national defense. His address may well be studied in connection with Upton's History of the Military Policy of the United States.

J. W. C.

Bivouac of the Dead.*

THEODORE O'HARA has this in common with the poet Thomas Gray, the fame of each rests mainly on a brief poem, that of the latter being probably more enduring.

O'Hara was a captain at twenty-six years of age in the Mexican War; an adventurer in Colonel Lopez's Cuban expedition of 1850; a Confederate officer from 1860-65, dying in 1867.

The "Martial Elegy," "The Bivouac of the Dead" was written in 1847, inspired by the removal to the Frankfort State Cemetery of the bodies of those Kentuckians who fell at Buena Vista. The account of the author is from the pen of an admirer.

C. E. L.

Personal Hygiene.†

THE number of good books on sanitary science is steadily increasing, and already there is a marked tendency to specialize.

Having learned the paramount importance of preserving health and recognized that hygiene should be an essential part of a liberal education, it naturally follows that it should be one of the courses of the college curriculum. But which of the subjects of the vast science of health, and in what form should be taught the undergraduate? Gen. A. A. Woodhull has satisfactorily answered the question in the shape of a neat little book on "Personal Hygiene." Having occupied the chair of Hygiene at Princeton since his retirement from the Medical Department of the army, General Woodhull has had unusual opportunities to ascertain what sanitary knowledge is best adapted to students, and in what form it is most acceptable. Besides a description of our various organs, their functions, uses and abuses, his book contains chapters on the development and care of the body, exercise, athletics, clothing, food, tobacco, alcohol, etc., in a word, all that an intelligent young man should know about his physical self. The subject of venereal diseases has been omitted, and, I believe, wisely. It is written in the clear, direct, authoritative style of the teacher, at once interesting, impressive and persuasive. This book is a distinct and valuable addition to our literature on hygiene; one which was much needed, and will be welcome not only by the faculties of our educational institutions, but likewise by all laymen who desire to possess a better knowledge of how to take care of their bodies, and of the means of preventing disease.

V. H.

**The Bivouac of the Dead and Its Author.* By George W. Ranck, Duo. P. 73. The Grafton Press, New York.

†*Personal Hygiene.* By Gen. A. A. Woodhull (retired), late Ass't Surg. General U.S. A.

In Memoriam.

The Executive Council of the MILITARY SERVICE INSTITUTION OF THE UNITED STATES at this their first meeting following the announcement of the death of Lieutenant-General **John McAllister Schofield**, U. S. Army, direct that there be placed upon the minutes of their proceedings the following minute as their tribute to the memory of one of the Presidents of the Institution. (*March 14, 1906.*)

* * * * *

Lieutenant-General Schofield was an active promoter of the best work of this Institution at a period when its growth and the extension of its usefulness was of supreme importance.

His counsels and his active participation in the work were wise and encouraging and were of influence throughout the Army of the United States, and from the more than national reputation of the scholarly soldier, appreciated wherever our publications were received at home and abroad.

A scholar, a soldier of the largest experience, a commanding general deservedly beloved and respected by those serving under him, he brought to this Council the influence and guidance of a military expert, a wise civil officer of the highest and most extended experiences and the supervision of a learned strategist.

Having served as Secretary of War in the Cabinet of President Johnson, having been trusted in a trying diplomatic position when the service of a skilled soldier of the highest national reputation was sought by the Government, performing this service to the satisfaction of the Government when employed on this foreign mission, he was especially fitted to act with a wise and preponderating influence as a member of this Executive Council.

We hold in grateful remembrance our active participation in the work of this Executive Council with one who united tact, firmness and ability.

The country has lost "a great soldier, a great statesman, a great negotiator, a great patriot," and we a faithful and firm friend and colaborer.

Resolved, That the foregoing shall be published in the May number of the JOURNAL, and that a duly certified copy shall be transmitted to the family of the deceased.

Attest:

T. H. RUGER,
Major-General U. S. A.,
President.

T. F. RODENBOUGH,
Brig-General U. S. A.,
Secretary.

MONUMENTS AND MEMORIAL TABLETS
ERECTED BY THE NATIONS TAKING PART IN THE RELIEF
OF THE LEGATIONS AT PEKING, CHINA.

BRITISH MONUMENT.

(In front of the Legation Gate.)

(Inscription):

“June 20th to August 14th, 1900.”

MEMORIAL TABLETS, BRITISH LEGATION CHAPEL.

1. *(Inscription:)*

“In memory of Captain _____ and _____ who gave their lives in defense of this Legation; also, (name of child who died during the siege) _____, therefore is it as great a folly to weep, death is the beginning of another life.”

“Neither men nor their lives are measured by an ell.”

“This tablet is placed here by some of those for whom they died, and others to whom their memory is dear.”

2. *(Inscription:)*

“To the glory of God and in memory of the non-commissioned officers and men of the Second Battalion, Royal Welsh Fusiliers, who fell in the march to Peking or died there of wounds or disease during the campaign of 1900-1901.”

(Here follow the names)

“This tablet is erected by their comrades.”

AUSTRIAN MONUMENT.

(Inscription:)

“To our comrades of the Imperial and Royal Marines, killed in Peking in the year 1900.”

(Here follow names of officers and men, and date of death.)

ITALIAN MONUMENT.

(Inscription:)

“Fell fighting for the honor of the Italian flag.”

(Here follow the names of places where engagements took place in 1900 and of the respective dead.)

“Glory to the Brave.”

JAPANESE MONUMENT.

(Grounds of the Japanese Legation Guard)

Inscription in Japanese characters.

"Monument for Those Killed During the Siege."

"In May, 1900, when the Boxer agitation began to affect the capital, the diplomatic body decided to summon for their protection a number of marines from their respective men-of-war. Accordingly, the Japanese Legation sent for one officer and twenty-four men from the gunboat ATAGO, and they arrived in Peking on the 31st of May. The total strength of all the Legation Guards, thus summoned, was over four hundred, but as the situation became more critical, all the legations agreed to increase it. Besides, to be on careful watch, a volunteer corps was formed from foreign residents, official and non-official, and helped the marines work. On the 10th of June it was reported that a relief party, consisting of about 2000 sailors, had started from Tientsin. So our legation detailed the following day, the chancellor, Mr. SUGIYAMA, to receive the coming sailors at Machiapu Station, but he was murdered outside the YUNG-TING Gate, by the KANSU cavalry, while the reported relief party did not come up at last. Since then, the Boxers, daily increasing, set churches on fire, killed native Christians, destroyed railways and telegraphs. The whole capital was threatened by conflagration. On the 16th of June all the legations were entirely cut off from all outside communication. At four P. M., on the 19th of June, the Chinese Government notified the diplomatic bodies that the allied fleet had demanded the surrender of the Taku Forts, and that this being considered tantamount to a declaration of war, all ministers should leave the capital within twenty-four hours.

"This was entirely unexpected by the latter, who were then isolated from the outside world. Accordingly, they desired to be enlightened on the matter before deciding how to act, and while they were corresponding with the Chinese Government, the German Minister was, on the 20th, murdered, on his way to the TSUNG-LI-YAMEN, by Chinese soldiers.

"All the Ministers then decided to stay in the Capital and to defend themselves with all their might. The Japanese force, together with their volunteer corps, numbering fifty-four men in all, occupied the premises of Prince Su. By this time the legation quarters TUNG-CHIAO-MIN-HSING, were surrounded by Chinese soldiers and Boxers, and at the termination of the above mentioned twenty-four hours, attacks began from all sides.

"Prince Su's premises were most vigorously attacked, and nearly all the buildings thereon were destroyed. Nine persons, including Secretary Narahara, Captain Ando and Attaché Kojima, were killed, and nearly one-half of our defenders wounded. Provisions became scanty, and they had to live on horse-flesh and rice-congee. Thus, for over fifty days they held their positions, until our Fifth Division, with relief forces of other powers, reached Peking, repelling the enemy before them, and the siege of the capital was raised on the 14th of August.

"During the siege the Japanese killed were temporarily buried at the corner of the compound of Chan-si-fu, but on the raising of the siege the remains were cremated and sent home.

"We who outlived the siege, after being subjected to several hardships with the departed whose souls are now in heaven, deeply lament their loss, and erect this monument on the spot where they died an honorable death."

COMMEMORATING THE CHINA RELIEF EXPEDITION.

THE Memorial Tablets to commemorate the services of the soldiers, sailors and marines of the China Relief Expedition of 1900 are now being manufactured at the Rock Island Arsenal. These tablets are to be cast in bronze, with simple borders, and six of them are to be placed on the inside of the wall surrounding the quarters of the Legation Guard on the grounds of the American Legation in Peking. One tablet is to be erected at Tien Tsin, China, to mark the spot where Col. E. H. Liscum, Ninth Infantry, was killed while commanding officer of the American forces in the Battle at Tien Tsin, July, 13, 1900.

The following correspondence is of interest:

WASHINGTON, D. C., January 9, 1905.

LIEUT.-GEN. A. R. CHAFFEE, UNITED STATES ARMY,
President Military Order of the Dragon.

MY DEAR GENERAL:

Referring to the remarks made by yourself, Admiral Remy and others, at the recent banquet of the Military Order of the Dragon, relative to the desirability of placing simple commemorative tablets on the inner walls of the American Legation compound at Peking, China, I beg to state that in May last, while passing from General Kuroki's Japanese Army to the Russian Army at New Chwang, I spent, en route, several days at Tien Tsin (visiting the battle-field where Colonel Liscum fell), and at Peking where I visited the restored Chien Men (Gate), where Captain Reilly was killed, just east of the grounds of the American Legation, so gallantly defended by the U. S. Marines, and now occupied by a company of the Ninth Infantry, in their fine new quarters, erected on the Legation grounds. I also visited your old headquarters in the Temple of Agriculture, where I had the honor of serving as a member of your staff in 1900. The camping places occupied by the foreign troops in Peking in 1900 have largely been restored to their original uses, and the foreign governments have apparently expended on their new legation buildings, monuments and memorials, all of the money received by them as indemnities, with the result that the foreign settlement at Peking, occupied by the foreign legations and their guards, has been greatly improved and has become quite Europeanized.

Monuments and tablets have been erected by the European nations and by Japan to their soldiers of the relief column, a noticeably fine one being that to the German troops, who did not arrive till after the campaign was over. So the one noticeable fact is the omission of any memorial or tablet to commemorate the services of the American soldiers of the Relief Expedition or any one of the American dead, Liscum and Reilly, who were the officers highest in rank killed at Tien Tsin and Peking respectively. In Tien Tsin the battle-field occupied by the Ninth Infantry and American marines is now in a concession granted to the Japanese Government by China, and the one-time swamp or lagoon in which our soldiers fought and fell has been filled up and laid out like the streets of a modern city. Within perhaps two hundred yards of the place marked by the officers of the Ninth Infantry as the spot where Liscum fell is a beautiful cavalry memorial, erected by the Japanese at considerable cost, in a cavalry barrack, to mark the site occupied by their troops. Within a very short time, owing to the growth of the Japanese settlement in Tien Tsin, the spot marked by the Ninth Infantry will be built over by the rapidly growing houses of the Japanese concession.

When in Tien Tsin I visited the Japanese consul, and have every reason to believe that the Japanese authorities will gladly allow the erection of a simple marker in an oval made at the intersection of two of their streets, so that the Liscum marker could be preserved in it and be accessible to the many Americans visiting Tien Tsin.

Many members of your old command in China have expressed a desire to have tablets inserted in the inner walls of our legation compound, containing a list of the officers and men killed in the campaign for the relief of Peking; a separate tablet, with the names of the Marine guard—officers and men—who so gallantly defended the Legation; a tablet to Captain McCalla, and his sailors and marines who participated in the naval attempt to relieve Peking, under Admiral Seymour; and, perhaps, a tablet with the names of the officers—some 200 in number—of the relief column operating in north China under your command.

Very truly yours,

(Signed)

WEBB C. HAYES.

1st Endorsement, January 9, 1905.

Some suitable action should be taken to perpetuate upon the ground of our Legation at Peking the presence of our troops in the Relief Expedition, also the presence of the troops at the battle at Tien Tsin, July 13, 1900.

Probably \$5,000 would supply and place tablets as suggested.

(Signed)

CHAFFEE,
Chief of Staff.

MY DEAR MR. SECRETARY:

I am directed by the President to send you the enclosed letter from Col. Webb C. Hayes to General Chaffee, and to invite your attention to the endorsement thereon. The President wishes to know if anything can be done along the lines indicated, and asks that you see Colonel Hayes in regard to the matter.

Very truly yours,

(Signed)

WM. LOEB, JR.,
Secretary to the President.

HON. JOHN HAY,
Secretary of State.

The Department of State had no funds available for the purpose, but the Congress, in the annual appropriation for sundry civil expenses of the Government, appropriated \$9,500 "to mark the places where the American soldiers fell and were temporarily interred in Cuba and China."

THE CHINA RELIEF EXPEDITION.

A. D. 1900.

THE Government of the United States of America has placed these tablets to commemorate the service of the soldiers, sailors and marines of the China Relief Expedition of 1900, who rescued their countrymen in the beleaguered legations in the Tartar city of Peking.

May 26th. The envoys accredited to the Chinese Government applied to their governments for guards for the protection of the legations in Peking.

May 29th. American sailors and marines, under command of Capt. B. H. McCalla, U. S. N., landed at Taku, China, and proceeded to Tientsin.

May 31st. Guards for the legations at Peking, consisting of 350 sailors and marines from American, British, French, Italian, Japanese and Russian warships, arrived at Peking. Of this force fifty were officers and men of the United States Marine Corps and five were United States seamen under command of Capt. J. T. Myers, U. S. M. C., who took station as guard for the American legation. This detachment of Americans participated in the defense of all of the legations from June 20th until the relief column arrived on August 14th and held the Tartar wall between the Chien Gate and the canal, and thus saved the legations. Casualties, six killed and ten wounded.

June 10th. An expeditionary force commanded by Vice-Admiral E. H. Seymour, R. N., consisting of over 2000 sailors and marines, the American contingent of about 100 men being under the command of Capt. B. H. McCalla, U. S. N., left Tientsin for Peking. After numerous engagements with Boxers and Chinese troops, both during the advance, which reached Langfang, and the retirement, the command returned to Tientsin on the 26th. American loss, four killed and twenty-five wounded.

July 13th. The combined forces of which about 900 were Americans (Ninth Infantry and marines), attacked the walled city of Tientsin, which was entered and occupied on July 14th. The American casualties included the commander of the American forces, Col. E. H. Liscum, Ninth Infantry, and Capt. A. R. Davis, of the U. S. Marines.

August 4th. The combined forces of about 16,000 men, of which over 2000 were Americans (Ninth Infantry, Fourteenth Infantry, Troop M Sixth Cavalry, Light Battery F, Fifth Artillery U. S. Marines), under command of Maj.-Gen. Adna R. Chaffee, left Tientsin for the relief of the legations in Peking.

August 5th. Battle of Peit-tsang.

August 6th. Battle of Yang-tsun; American casualties nine killed and sixty-four wounded.

August 14th. The American troops fought their way through the Chinese city of Peking and entered the Tartar city through the sluice gate. The Fourteenth United States Infantry was the first to scale the wall of the Tartar city.

August 15th. The American troops attacked and carried in succession all the gates leading to the Forbidden City from the Chien Gate, and established guards to hold them. Capt. H. J. Reilly, Fifth Artillery, killed.

August 16th. The city of Peking was divided for police and administrative purposes into four sections under the American, British, Japanese and Russian commanders, and the permanent camp of the American troops was established in the Temple of Agriculture.

August 19th. Expeditionary forces, of which 400 were Americans (Sixth Cavalry) under command of Lieut.-Col. T. J. Wint, Sixth Cavalry, defeated several thousand Boxers six miles southwest of Tientsin.

During August and September, 1900, the American troops sent out minor expeditions in the vicinity of Peking. They retained administrative control of nearly one-fourth of Peking till May, 1901, by which time all American troops, except one company, as legation guard, had left China.

The relief of the foreign legations in Peking, for which the China Relief Expedition was organized, having been accomplished, a formal final review of the American troops in Peking was held on October 1st by Major-General Chaffee, in honor of the Honorable E. H. Conger, Minister of the United States of America; and, to perpetuate the memories of the campaign, the officers of the expedition organized The Military Order of the Dragon.

CHINA RELIEF EXPEDITION OF 1900.

UNITED STATES ARMY, NAVY AND MARINE CORPS.

MAJOR GENERAL ADNA R. CHAFFEE, COMMANDING.

PERSONAL STAFF.

Lieut. R. B. HARPER, Seventh Cavalry, A. D. C. Lieut. J. W. FURLONG, Sixth Cav., Lieut. B. B. HYER, Sixth Cav., Act. A. D. C. Capt. J. R. LINDSEY, Fifteenth Cav., A. D. C. Lieut.-Col. W. C. HAYES, Vol., A. D. C. Lieut. J. L. LATIMER, U. S. N., Lieut. W. H. McGRANN, U. S. N.

GENERAL STAFF.

Chief of Staff: Maj. J. M. LEE, Ninth Inf., Lieut.-Col. J. T. DICKMAN, U. S. V. (Captain Eighth Cav.).

Adjutant General: Capt. GROTE HUTCHESON, Sixth Cav., Col. H. O. S. HEISTAND.

Inspector General: Maj. J. M. LEE, Ninth Inf.

Chief Quartermaster: Capt. F. DEW. RAMSEY, Ninth Inf., Lieut.-Col. C. F. HUMPHREY.

Chief Commissary: Capt. F. DEW. RAMSEY, Ninth Inf., Maj. H. J. GALLAGHER, U. S. V.

Chief Surgeon: Maj. W. B. BANISTER, Maj. J. VAN R. HOFF, Maj. F. J. IVES.

Chief Engineer Officer: Lieut. H. B. FERGUSON, C.E.

Chief Ordnance Officer: Capt. WILLIAM CROZIER, Capt. GEORGE MONTGOMERY.

Chief Signal Officer: Maj. G. P. SCRIVEN, Lieut. H. W. STAMFORD.

Chief Paymaster: Maj. W. B. SCHOFIELD, Major W. B. ROCHESTER, JR.

Judge Advocate: Maj. C. H. MUIR, U. S. V., (Capt. Second Infantry), Capt. GROTE HUTCHESON, Sixth Cav.

Attached: Maj. S. M. MILLS, Sixth Artillery; Lieut.-Col. J. S. MALLORY, U. S. V. (Captain. Second Infantry); Maj. W. E. CRAIGHILL, U. S. V. (Captain, Engineer Corps); Capt. C. F. O'KEEFE, U. S. V.

Brig.-Gen. T. H. BARRY, U. S. V. (Lieut.-Col. U. S. A.); Capt. R. T. HAZZARD, U. S. V.

QUARTERMASTER'S DEPARTMENT.

Lieut.-Col. C. F. HUMPHREY, Majors J. B. ALESHIRE, J. C. BYRON, U.S.V. (Captain U.S.A.); Captains W. S. WOOD, I. L. FREDENDALL (U.S.V.).

SUBSISTENCE DEPARTMENT.

Maj. H. J. GALLAGHER, U.S.V. (Captain U. S. A.); Captains W. H. BEAN, THOMAS FRANKLIN.

MEDICAL DEPARTMENT.

Majors J. VAN R. HOFF, E. T. COMEGYS, W. H. ARTHUR, WILLIAM STEPHENSON, F. J. IVES, W. B. BANISTER, W. F. LEWIS, U.S.V. (Captain, U.S.A.); Captains I. E. BENNETT, U.S.V., W. W. CALHOUN, U.S.V.; Lieutenants E. R. SCHREINER, C. E. MARROW, H. S. GREENLEAF; Acting Assistant Surgeons FRED. M. BARNEY, R. M. BLANCHARD, M. H. BOWMAN, H. D. CORBUSIER, G. H. CRABTREE, C. F. DICKINSON, J. T. HALSELL, M. E. HUGHES, F. E. JENKINS, F. J. KOYLE, CHARLES LEWIS, R. S. LINN, CLARENCE MARTIN, ALBERT MOSER, E. C. POEY, C. J. ROWAN, R. E. SIEVERS, H. H. VAN KIRK, H. A. WAHL, R. N. WINN, F. F. WOODBURY.

SIGNAL CORPS.

Maj. G. P. SCRIVEN, Capt. C. F. O'KEEFE, U.S.V.; Lieutenants H. W. STAMFORD, H. O. HASTINGS, PETER BARTSCH, H. W. CAPRON.

FIRST BRIGADE. HEADQUARTERS AT PEKING.

BRIG.-GEN. J. H. WILSON, U.S.V., COMMANDING.

Personal Staff: Lieut. G. S. TURNER, Tenth Inf., Lieut. J. H. REEVES, Second Cav.

Third Squadron Sixth U.S. Cavalry.

Two Battalions Fourteenth U.S. Infantry.

Battery F, Fifth U.S. Artillery.

Two Battalions First Regiment U.S. Marines.

Ninth Regiment, U.S. Infantry.

SECOND BRIGADE. HEADQUARTERS AT TIENTSIN.

COL. S. S. SUMNER, SIXTH CAVALRY, COMMANDING.

First Squadron Sixth U.S. Cavalry.

One Battalion Fifteenth U.S. Infantry.

One Battalion Third U.S. Artillery.

One Battalion First Regiment U. S. Marines.

SIXTH REGIMENT OF CAVALRY.

Colonels S. S. SUMNER (Commanding Second Brigade), T. J. WINT; Majors E. L. HUGGINS, ALEXANDER RODGERS; Captains A. P. BLOCKSON, W. W. FORSYTH, DE R. C. CABELL, GROTE HUTCHESON, R. B. PADDOCK (Died at Peking), Lieutenants J. T. NANCE, C. D. RHODES, F. C. MARSHALL, J. W. FURLONG, T. M. CORCORAN, G. C. BARNHARDT, B. B. HYER, H. A. WHITE, A. VAN P. ANDERSON, E. R. HEIBERG, MALIN CRAIG, W. B. SCALES, WARREN DEAN, P. W. GUINEY, STUART HEINTZELMAN, W. L. KARNES, J. A. BAER, F. E. BUCHAN, W. S. GRANT.

THIRD REGIMENT OF ARTILLERY.

Captains CHARLES HUMPHREYS, H. C. DANES, C. H. HUNTER, C. A. BENNETT; Lieutenants ARCHIBALD CAMPBELL, W. S. MCNAIR, G. H. MCMANUS, WILLIAM FORSE, H. M. MERRIAM, O. L. SPAULDING, Jr., H. C. EVANS, Jr., H. B. CLARK.

FIFTH REGIMENT OF ARTILLERY.

Captains H. J. REILLY (killed at Peking), THOMAS RIDGWAY; Lieutenants L. R. BURGESS, C. P. SUMMERALL, MANUS MCCLOSKEY, HARRISON HALL.

NINTH REGIMENT OF INFANTRY.

Colonels E. H. LISCUM (killed at Tientsin), C. F. ROBE; Lieut.-Col. C. A. COOLIDGE; Majors J. M. LEE, M. C. FOOTE, JAMES REGAN, E. B. ROBERTSON; Chaplain WALTER MARVINE; Captains F. L. DODDS, C. R. NOYES, R. H. ANDERSON, F. L. PALMER, A. W. BREWSTER, F. DE W. RAMSEY, M. L. HERSEY, J. M. SIGWORTH, E. V. BOOKMILLER, F. H. SCHOEFFEL; Lieutenants L. B. LAWTON, T. W. CONNELL, H. F. RETHERS, B. M. HARTSHORNE, Jr., F. L. MUNSON, HAROLD HAMMOND, I. C. WELBORN, J. B. SCHOEFFEL, B. P. NICKLIN, W. K. NAYLOR, E. R. GIBSON, E. A. BUMPUS, J. P. DROUILLARD, M. M. WEEKS (Twenty-first Infantry), C. C. KINNEY, G. S. SIMONDS, F. R. BROWN, REUBEN SMITH, F. R. LANG, W. H. WALDRON, G. W. WALLACE, ALLEN SMITH, Jr., W. P. COLEMAN, R. S. CLARK, A. U. LOEB, P. A. GOODRICH, T. M. BAINES, Jr., E. T. SMITH.

FOURTEENTH REGIMENT OF INFANTRY.

Col. A. S. DAGGETT; Major WILLIAM QUINTON; Chaplain L. R. GROVES; Captains W. B. REYNOLDS, F. F. EASTMAN, J. C. F. TILLSON, ALFRED HASBROUCK, Jr., C. H. MARTIN, J. R. M. TAYLOR, H. G. LEARNARD, JOSEPH FRAZIER; Lieutenants L. M. NUTTMAN, W. A. BURNSIDE, F. M. SAVAGE, P. H. MULLAY, J. F. GOHN, J. L. GILBRETH, R. M. BRAMBILA, H. S. WAGNER, C. P. FAULKNER (Eighth Infantry), C. N. MURPHY, F. S. L. PRICE, JAMES HANSON, D. K. MAJOR, Jr., A. N. MCCLURE, R. F. McMILLAN, W. S. SINCLAIR, C. E. KILBOURNE, Jr., L. McL. HAMILTON, H. E. MITCHELL, E. E. ALLEN, P. K. BRICE, G. R. GREENE.

FIFTEENTH REGIMENT OF INFANTRY.

Col. EDWARD MOALE; Captains J. A. MANEY, W. F. BLAUVELT, EDWARD LLOYD, W. N. BLOW, Jr., EDMUND WITTEMYER; Lieutenants J. McA. PALMER, G. McD. WEEKS, J. A. LYNCH, J. K. MOORE, F. G. KNABENSHUE, A. S. COWAN, E. M. REEVE, W. C. JOHNSON.

OFFICERS OF THE U. S. MARINE CORPS.

Colonels R. L. MEADE, H. C. COCHRANE; Majors GEORGE RICHARDS, W. P. BIDDLE, RANDOLPH DICKENS, L. W. T. WALLER; Captains F. J. MOSES, C. G. LONG, B. H. FULLER, R. McM. DUTTON, L. H. MOSES, W. C. NEVILLE, W. N. MCKELVY, A. R. DAVIS (killed at Tientsin), T. H. LOW, M. J. SHAW, P. M. BANNON, W. B. LEMLY, S. D. BUTLER, HENRY LEONARD, D. D. PORTER, G. C. REID, R. H. DUNLAP, A. J. MATTHEWS, J. F. MCGILL, R. F. WYNNIE; Lieutenants W. G. POWELL, W. H. CLIFFORD, Jr., J. H. A. DAY, WILLIAM HOPKINS, A. E. HARDING, C. H. LYMAN, C. C. CARPENTER, L. M. LITTLE, F. M. WISE, Jr., WIRT MCCREARY, S. A. W. PATTERSON, W. L. JOLLY, H. J. HIRSHINGER, J. G. MUIR, H. R. LAY, C. B. TAYLOR, H. D. F. LONG, W. C. HARLEE, H. L. MATHEWS, D. C. McDUGAL, T. E. BACKSTROM, D. W. BLAKE, F. C. LANDER, F. J. SCHWABLE.

MEDICAL CORPS, U. S. NAVY.

Surgeon O. D. NORTON; P. A. Surgeons G. A. LONG, G. D. COSTIGAN; A. Surgeons J. C. THOMPSON, J. T. KENNEDY

UNITED STATES NAVAL FORCE CO-OPERATING WITH CHINA RELIEF EXPEDITION.

REAR ADMIRAL GEORGE C. REMEY, COMMANDER-IN-CHIEF.

STAFF.

Capt. C. M. THOMAS, Chief of Staff; Lieut. J. H. SHIPLEY, Flag Lieut.; Aides: Lieut. R. R. BELKNAP; Ensigns J. H. HOLDEN, W. B. TARDY, M. H. BROWN.

REAR ADMIRAL LOUIS KEMPF, Senior Squadron Commander.

STAFF.

Lieut. VICTOR BLUE, Flag Lieut.; Aides: Lieut. RIDLEY McLEAN; Ensign G. T. PETTENGILL.

U. S. S. BROOKLYN.

Capt. C. M. THOMAS, commanding; Lieut. Commanders A. F. DIXON, B. O. SCOTT; Lieuts. J. H. GIBBONS, J. L. LATIMER, P. N. OLMSTEAD, L. B. JONES; Ensigns C. L. POOR, W. H. REYNOLDS, C. T. OWENS, W. T. TARRANT, CHARLES BOONE; Naval Cadets W. N. JEFFERS, R. A. ABERNATHY, HAYNE ELLIS, F. D. BERRIEN, E. B. FENNER, H. L. BRINSER, J. T. BECKNER, G. W. STEELE, J. F. HELLWEG, C. S. FREEMAN; Medical Inspector R. C. PERSONS; Assistant Surgeons F. L. BENTON, A. G. GRUNWELL; Pay Inspector H. T. B. HARRIS; Chaplain FRANK THOMPSON; Major W. F. SPICER; Lieut. P. S. BROWN.

U. S. S. NEWARK.

Capt. B. H. McCALLA; Lieut. Commanders J. M. ROPER, J. K. BARTON; Lieuts. J. L. JAYNE, H. F. BRYAN; Ensigns A. W. MARSHALL, C. E. GILPIN, D. W. WURTSBAUGH, R. N. MARBLE, J. S. GRAHAM; Naval Cadets J. K. TAUSSIG, C. E. COURTNEY; Surgeon A. C. H. RUSSELL; P. A. Surgeon R. M. KENNEDY; Paymaster H. E. JEWETT.

U. S. S. OREGON.

Capt. G. F. F. WILDE; Lieut. Commanders C. A. ADAMS, T. F. BURGDORFF; Lieuts. J. F. SCHELL, R. H. LEIGH, A. A. MCKETHAN; Ensigns D. M. WOOD, C. P. BURT, W. C. ASSERSON, H. J. ELSON, G. W. FALLER, C. P. NELSON; Naval Cadet C. H. WOODWARD; Medical Inspector G. E. H. HARMON; Paymaster S. L. HEAP; Lieut. R. C. BERKELEY.

U. S. S. NEW ORLEANS.

Capt. J. G. GREEN; Lieut. Commanders J. T. SMITH, W. N. LITTLE; Lieuts. W. J. SEARS, L. M. NULTON, J. F. CARTER, CHESTER WELLS; Naval Cadets C. E. MORGAN, P. B. DUNGAN, W. R. SAYLES; Surgeon J. F. B. CORDIERO; P. A. Paymaster W. B. IZARD; Lieut. C. S. HATCH.

U. S. S. YORKTOWN.

Commander E. D. TAUSSIG; Lieut. Commander J. M. BOWYER; Lieuts. HOWARD GAGE, C. S. STANWORTH; Ensigns W. H. STANDLEY, ARTHUR MACARTHUR, POPE WASHINGTON, H. E. YARNELL, H. C. DINGER; Assistant Surgeon EDWIN DAVIS; P. A. Paymaster SAMUEL BRYAN; Acting Assistant Paymaster S. H. KNOWLES.

U. S. S. NASHVILLE.

Commanders R. P. RODGERS, N. E. NILES; Lieut. Commander ALFRED REYNOLDS; Lieuts. J. H. OLIVER, M. A. ANDERSON, R. H. JACKSON, D. V. H. ALLEN, A. M. COOK; Ensign K. G. CASTLEMAN; Assistant Surgeon EDGAR THOMPSON; Assistant Paymaster C. J. CLEBORNE.

U. S. S. MONOCACY.

Commander F. M. WISE; Lieut. Commander W. S. HOGG; Lieuts. G. R. CLARK, T. W. RYAN, N. E. IRWIN, W. H. McGRANN, R. D. HASBROUCK; Ensign W. C. DAVIDSON; Assistant Paymaster G. M. LUKESH.

U. S. S. SOLACE.

Commander HERBERT WINSLOW; Lieut. Commanders F. W. COFFIN, G. S. WILLITS; Lieut. F. BOUGHTER, J. E. CRAVEN, H. C. KUENZLI, W. V. PRATT; Ensign R. Z. JOHNSTON, JR.; Assistant Surgeon JACOB STEPP; Paymaster J. S. PHILLIPS; Lieut. B. F. RITTENHOUSE.

U. S. S. BUFFALO.

Commander C. T. HUTCHINS; Lieut. Commander H. H. HOSLEY, H. O. DUNN; Lieuts. C. P. EATON, A. C. DIEFFENBACH, A. T. LONG, G. L. P. STONE, H. V. BUTLER; P. A. Surgeon C. F. STOKES; P. A. Paymaster JOHN IRWIN, JR.; Chaplain W. T. HELMS.

U. S. S. ZAFIRO.

Ensign L. A. COTTON; Assistant Paymaster GEORGE W. REEVES, JR.

OFFICERS AND MEN OF THE UNITED STATES ARMY, NAVY AND
MARINE CORPS WHO WERE KILLED IN ACTION OR DIED IN
NORTH CHINA BETWEEN MAY 31, 1900, AND MAY 31, 1901.

SIXTH REGIMENT OF CAVALRY.

Killed in Action: Trumpeter FRED CORRIGON.

Died.—Capt. RICHARD B. PADDOCK; Corporal CHARLES COOPER; Privates CLIFFORD HALSEY, CHARLES ERICKSEN, ELMER INGHAM, HARRY B. SHUPARD, FRANK D. THOMPSON, KING W. WALSH, MICHAEL BOWLER, FARRIER WILBERT RITCHEY.

THIRD REGIMENT OF ARTILLERY.

Died.—Corporal JOHN HUGHES.

FIFTH REGIMENT OF ARTILLERY.

Killed in Action.—Capt. HENRY J. REILLY.

NINTH REGIMENT OF INFANTRY.

Killed in Action.—Col. EMERSON H. LISCUM; Corporals R. B. SLATER, STEPHEN O'DEA, S. A. CHRISTENBERRY; Privates JOHN A. POTTER, GEORGE H. BUCKLEY, JOHN MCPARTLAND, GOTFRIED SVENSON, BARNEY GONYEA, ROBERT B. GOLDEN, ROBERT E. WALSH, JOHN H. PORTER, JAMES O. HALL, OSCAR OLSON, JOHN J. DREHER, ALEX SKOGSBERG, CASPER SCHWERTFEGER, JAMES B. TAYLOR, CLYDE J. JAMISON, FRED E. RIEFFANNACHT, JOHN P. SMITH, DEWEY ROGERS, JAMES J. O'NIEL, JOSEPH L. FRITSCH.

Died.—Sergt. JOHN M. O'CONNOR; Privates JAKE H. AMMERMAN, EZEKIEL E. HALE, HENRY KIRKLAND, DAVID MCDANIEL, MORTON STALNAKER, WILLIAM BRAYTON, JOHN J. KNITTER, WALTER ALLEN, JAMES H. BURKE, OLIVER ACKERMAN, WILLIAM TALBOTT, ALBERT HENIG, JOHN SULLIVAN, SAMUEL A. WOMACK, GEORGE S. BELL, PATRICK DONOVAN, WILLIAM HARVEY, CHARLES KILDISH, EUGENE L. LYON, HENRY MORRAY, MICHAEL NEVINS, JOSEPH KNOX, DANIEL REASONER, CHARLES FREIDECK, AMBROSE J. MELONSON, DENIS SHEA, WILLIAM H. WEBB, WILLIAM KELLY.

FOURTEENTH REGIMENT OF INFANTRY.

Killed in Action.—Corporals FRANK SAFFORD, JOHN H. HURST; Musician ORAN A. KEMPER; Privates DANIEL W. SIMPKINS, LAURENCE M. GOOGINS, CLAUDE SMITH, ROBERT C. KERR, WYATT C. HICKS, ROLAND L. PERRY, RUSSELL T. ELLIOTT, W. E. METZLER, JAMES C. WIBER, ROY W. BERGAN, GEORGE C. KAUFMANN, ARCHIE J. RANNEY, HENRY J. KYSELA, CLINT W. GRAHAM, JAMES RICE, LAFER J. ALLEY, PHILIP M. ANDERSON, ALFRED M. MESSER, EDWARD B. MITCHELL, PASCHAL Y. SMITH, JAMES OUELLETTE.

Died.—Privates GEORGE CAUIT, JOSEPH LYONS, CLIFFORD E. BEDFORD, ROBERT HORAN, ALFRED POWER, WILLIAM H. CONNOR, HUGO C. KRAFFT, WILLIAM H. GILLESPIE, CHARLIE L. ORGAN.

FIFTEENTH REGIMENT OF INFANTRY.

Died.—Privates ALBERT CARTER, FRANK CLAPIN.

HOSPITAL CORPS U. S. A.

Died.—Privates CONEY J. HATHORN, JOHN H. RING.

UNITED STATES NAVY.

Killed in Action.—Boatswain's mate T. THOMAS; Gunner's mate B. BENSON; Coxswain K. THOMAS; Apprentice H. A. BROMAN; Landsman H. SEVERSON.

UNITED STATES MARINE CORPS.

Killed in Action.—Capt. A. R. DAVIS; Sergts. JOHN FANNING, C. J. KOLLECK; Corporal THOMAS KELLY; Privates J. F. LANIGAN, J. C. HUNTER, HENRY MORRIS, J. K. MILLER, W. H. NICHOLS, J. H. SCHROEDER, HARRY FISHER, C. B. KING, A. A. TURNER, R. E. THOMAS, J. W. TUTCHER, JOHN KENNEDY, I. W. PATRIDGE, JAMES MCCONKEY.

Died.—Quarter master Sergt. H. J. CHISOLM; Sergt. N. P. NELSON; Corporals THOMAS BROPHY, D. F. WETHERELL; Privates G. R. STEPHENSON, G. P. FARRELL, STEPHEN FISHER, JAMES SAYERS, J. P. SULLIVAN, G. T. LEACH, W. F. FENTON, A. R. WOOD, E. P. PROVENSAL.

MEMBERS OF THE LEGATION OF THE UNITED STATES OF AMERICA AND
OF THE LEGATION GUARD PRESENT DURING THE SIEGE OF THE FOREIGN
LEGATIONS IN PEKING MAY 31 TO AUGUST 14, 1900.

MEMBERS OF THE LEGATION:

EDWIN C. CONGER, Minister.
H. G. SQUIRES, First Secretary.
WILLIAM E. BAINBRIDGE, Second Secretary.
FLEMING D. CHESHIRE, Chinese Secretary.

MEMBERS OF THE LEGATION GUARD:

Capt. J. T. MYERS, U.S.M.C., Commanding Guard (wounded).
Capt. N. H. HALL, U.S.M.C.
Assistant Surgeon T. M. LIPPETT, U. S.N. (wounded).

MARINES, U.S.S. OREGON:

Sergeant E. A. WALKER,
Corporal J. O. DAHLGREN,
" MARTIN HUNT,
Private E. J. BOYDSTON,
" JOHN BUTTS,
" HARRY FISHER (killed),
" CHARLES GREER,
" JOHN HERTER,
" C. B. HOBBS,
" W. G. HORTON,
" HERMAN KEHM,
" C. B. KING (killed),
" F. D. MOODY (wounded),
" ALBERT MOORE,
" M. L. M. MUELLER (wounded),
" C. C. MULLEN,
" G. F. O'LEARY,
" H. I. PRESTON,
" RICHARD QUINN,
" D. J. SCANNELL,
" R. E. THOMAS (killed),
" A. A. TURNER (killed),
" O. J. UPHAM,
" C. R. WHITE,
" F. A. YOUNG,

MARINES, U.S.S. NEWARK:

Sergeant JOHN FANNING (killed),
Drummer J. A. MURPHY,
Private J. O. AMMANN,
" R. M. BARRATT,
" GOTTLIEB BROSI,
" W. L. CARR,
" DANIEL DALY,
" H. W. DAVIS,
" E. J. DONOVAN,
" W. F. DONOVAN,
" G. P. FARRELL,
" L. R. GAIENNIE,
" H. C. GALLIGHER,
" HARRY GOLD (wounded),
" T. F. HALL (wounded),
" JOHN KENNEDY (killed),
" A. J. KUHN,
" J. J. LAVIN,
" J. C. A. MARTIN,
" J. H. SCHROEDER (wounded),
" FRANCE SILVA (wounded),
" F. J. TINKLER,
" J. W. TUTCHER,
" WILLIAM ZION.

SAILORS, U.S.S. NEWARK.

Chief Machinist T. PETERSON,
Gunner's Mate I. C. J. MITCHELL (wounded),
Seaman J. SJORGEEN,
Seaman A. WESTERMARK,
Hospital Apprentice R. STANLEY (wounded).

The Government of the United States of America has placed this tablet to commemorate the services of the officers and men of the United States Army and Marine Corps, killed and wounded in action at Tientsin, China, July 13, 1900.

NINTH REGIMENT OF U.S. INFANTRY.

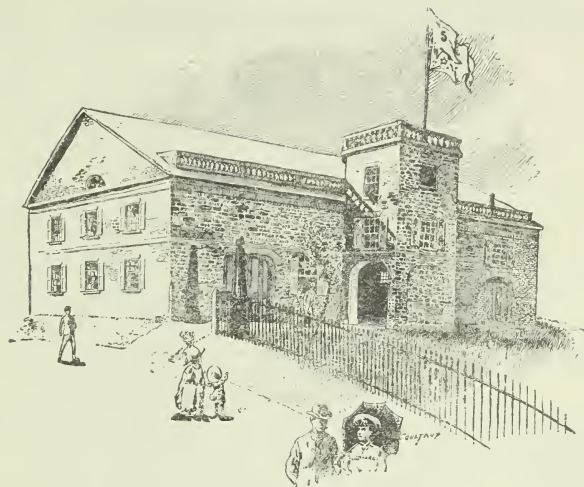
Killed.—Colonel EMERSON H. LISCUM; Corporals RICHARD B. SLATER, STEPHEN O'DEA; Privates JOHN A. PORTER, GEORGE H. BUCKLEY, JOHN MCPARTLAND, GOTFRIED SVENSON, BARNEY GONYEA, ROBERT B. GOLDEN, JOHN H. PORTER, OSCAR OLSON, JOHN J. DREHR, ALEX. SKOGSBERG, JAMES B. TAYLOR, CASPER SCHWERTFEGER, CLYDE J. JAMISON, FRED E. RIEFFEN-NACHT, JOHN P. SMITH, DEWEY ROGERS, JAMES J. O'NEIL.

Wounded. Maj. JAMES REGAN; Captains CHARLES R. NOYES, EDWIN V. BOOKMILLER; Lieutenants LOUIS B. LAWTON, FRANK R. LANG; Sergeants ROMEO T. PERRY, JOSEPH A. DOREY, ADELBERT WALKER, GEORGE BAILEY, EDWARD GORMAN, WESLEY BICKHART; Corporals ARNOLD PER-
UZZY, MICHAEL CONROY, JOHN GALLANT, JAMES R. BURTON, PETER SAVAGE, SAMUEL F. WHIPPS,
RICHARD W. WEBB, SILAS A. CHRISTENBERRY, SHERMAN E. JACKSON, FRANK M. LEONARD,
GUSTAV BRATZ, THOMAS H. CURREN, DENNIS MORIARTY, ALBERT JUHL, JACOB MENGEL, GER-
HART HECKERMAN, GEORGE F. HOAR; Musician HARRY K. ELLIS; Privates JOHN J. DIAMOND,
MARTIN DUNPHY, GEORGE F. MURPHY, JOHN SEYMOUR, ARTHUR W. RUGGLES, ROBERT CRAW-
FORD, HENRY E. STILLINGS, HARRY VAN LEER, PATRICK COX, FRANK E. SOUTHWORTH, WIL-
LIAM S. ROWLEY, CLARENCE J. MCBRIDE, JOHN D. CLOSSON, ULYSSES S. JUMPER, HENRY J.
SCHARER, ROBERT H. VON SHLICK, THOMAS L. MALONEY, JOSEPH MUNCH, JR., FRED E. NEWELL,
DAVID J. KENNEDY, CARROL L. PINGREE, WILLIAM MURPHY, JOSEPH RYAN, WILLIAM GILBERT.
JOSEPH McMAHON, PATRICK J. MURPHY, DAVID A. MURPHY, FRANCIS J. MAGEE, FREDERICK E.
SHOECRAFT, EDWARD WRIGHT, ARTHUR ABLES, ORIN C. WESTON, DAVID H. HAMMONS, HARRY
A. NORTON, JOHN P. DIAMOND, LODA B. KING, PHILIP WUBNIG, WALTER F. COLEMAN, WILLIAM
L. PARTLON, ANDREW RODEN, JESSE I. WESTERVELT, LEWIS L. FRISH, JOHN P. MCSWEENEY,
CHARLEY P. RILEY, RALPH E. RICHARDS, DAVID H. MORRIS.

U. S. MARINE CORPS.

Killed.—Captain AUSTIN R. DAVIS; Sergeant CHARLES J. KOLLECK; Corporal THOMAS KELLY
Privates JAMES MCCONKEY, ISAAC W. PATRIDGE.

Wounded.—Captains CHARLES G. LONG, WILLIAM B. LEMLY; First Lieutenants SMEDLEY D.
BUTLER, HENRY LEONARD; Sergeants JAMES MURPHY, FREDERICK T. WINTERS; Corporals JOHN
A. McDONALD, JOSEPH W. HUNT; Privates ROSCOE BUCK, WILLIAM S. CHAPMAN, JAMES COONEY,
RODERICK DESMOND, FREDERICK G. EGELSEER, PATRICK D. KELLEHER, LAURIN LARSSON,
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B. PENNY, HENRY A. RIEKERS, JOHN STOKES, JOSEPH VAN HORN.



THE MUSEUM OF THE MILITARY SERVICE INSTITUTION OF THE UNITED STATES,
GOVERNORS' ISLAND, NEW YORK HARBOR.

Editor's Bulletin.

SINCE last publication of the JOURNAL the following articles have been added to the collection:

I. **A large painting** (framed), of Maj.-Gen. GEORGE B. McCLELLAN, U. S. A., as he appeared in 1864, a gift from his son, Hon. G. B. McClellan, Mayor, City of New York.

II. **Mexican War Relics**, collected by the late Surgeon NATHAN T. JARVIS, U. S. A., loaned by his son, Capt. N. S. Jarvis, U. S. A. (lieutenant-colonel N. G. N. Y.).

1. Mexican Escopette, found on the field of Monterey.
2. Cavalry Saber, broken by a cannon ball, from Monterey.
3. Mexican lance, broken in a charge at Monterey.
4. Cap plates and ornaments with the numbers of various regiments of the Mexican Army; picked up on battle-fields of Palo Alto, Resaca and Monterey.
5. Cavalry equipments from Monterey.
6. Shoulder knots from Mexican artillerist and lancer. Found at Monterey.
7. Copper cannon balls picked up at Monterey.
8. Copper or composition shell fired during the siege of Fort Brown.
9. Five copper grapeshot from Monterey.

Accessions to the Library and Museum.

III. **Bronze bas-relief portraits** of noted officers of the army and navy, bearing their autograph traced on the metal, loaned by the sculptor, Mr. JAMES E. KELLY, of New York, viz.: Generals David S. Stanley, Alex. McD. McCook, Alfred Pleasanton, Alex. S. Webb; Admirals John L. Worden and William T. Sampson; also **bronze statuette** of "Sheridan's Ride."

IV. **Portrait** of Lieut.-Gen. NELSON A. MILES, U.S.A., former President MILITARY SERVICE INSTITUTION (large photograph), presented in compliance with request.

Notable
Chapters
of Army
Life in
Peace
and War.

The interest excited by the publication of extracts from the diaries and personal recollections of old officers of the Army confirms the judgment of the Publication Committee in setting apart space, in each issue of the JOURNAL, for "Types and Traditions of the Old Army."

"Letters from Europe," by Lieut. Farley (comprising an account of a visit to Lafayette in 1828), and Gen. Bliss' vivid picture of the experiences of his volunteer regiment at Fredericksburg, 1862, are features of this number.

Our Ex-
changes.

The unusual space required for "Reviews," in this number, has compelled us to omit the *précis* of the contents of current "Exchanges"; the deprivation, however temporary, is to be regretted and we hereby tender our apologies.

Errata
West
Point
Class
1854.

The following typographical errors on page 548 are noted: The names "Crooks" and "Drum" should be set in "roman type"; the name "Hollaway" should read "Holloway," and "Hayne" read "Haynes."



Journal
of the
Military
Service
Institution

1878

1906

Governor's
Island
N. Y. H.

THE JOURNAL

JULY-AUGUST, 1906



OME of the papers approved for early publication in JOURNAL for the year 1906.

I. "THE CHIEF COMMAND IN THE FRENCH ARMY."—Trans. by Chaplain T. G. Steward, U. S. A.

II. "THE SWISS MILITARY ORGANIZATION."—By Captain T. Bentley Mott, Artillery

Corps. (Official Report, June 12, 1905. Publication authorized.)—Concluded from May Journal.

III. "THE SUMMARY COURT."—By Lieut. R. E. Longan, 11th Infantry.

IV. "THE QUARTERMASTER'S DEPOT AT ALEXANDRIA DURING THE CIVIL WAR."—By Brig.-Gen. J. G. C. Lee, U. S. A., (late) Asst. Quartermaster-General.

V. "THE RIGHT OF ASYLUM." (Including the rescue of belligerents by neutrals at sea.) Graduating Thesis, Department of Law, Staff College, Fort Leavenworth, Class of 1905.—By Capt. W. D. Connor, Corps of Engineers.

VI. "NAPOLEON AT THE SIEGE OF TOULON."—By Lieut. G. V. S. Quackenbush, 23d Infantry.

VII. "OUR MILITARY INDIVIDUALISM; THE RELATION OF AMERICAN CHARACTER TO IT AND THE IMPORTANCE OF ITS EFFECTIVE DEVELOPMENT."—By Lieut. Frank Geere, Artillery Corps.

VIII. "AUSTERLITZ; A REMARKABLE FORCED MARCH."—By Frederic L. Huidekoper. (From the French military archives.)

IX. "TYPES AND TRADITIONS OF THE OLD ARMY."
"Extracts from the Diary of the late Bvt. Major-General Harvey Brown, U. S. A. (With portrait and facsimiles of autograph letters.)

THE PUBLICATION COMMITTEE invites contributions of original papers, translations and comments upon current topics. Attention is called to "Gold Medal," "Seaman," "Short Paper," and "Santiago" prizes described elsewhere.

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Annual Prizes, 1906

(For Rules governing awards, see January or March numbers).

Gold and Silver Medals

First Prize—Gold Medal, \$100 and Life Membership.

Second Prize—Silver Medal, \$50 and Honorable Mention.

Subject: “What System of Promotions and Retirements will Secure the Highest Degree of Efficiency in the Commissioned Personnel of the U. S. Army.”

The Seaman Prize

First Prize—One Hundred Dollars in Gold.

Second Prize—Fifty Dollars.

Subject: “Military Hygiene, and How Can the People of the United States be Educated to Appreciate its Necessity?”

The Santiago Prize*

Prize—Fifty Dollars.

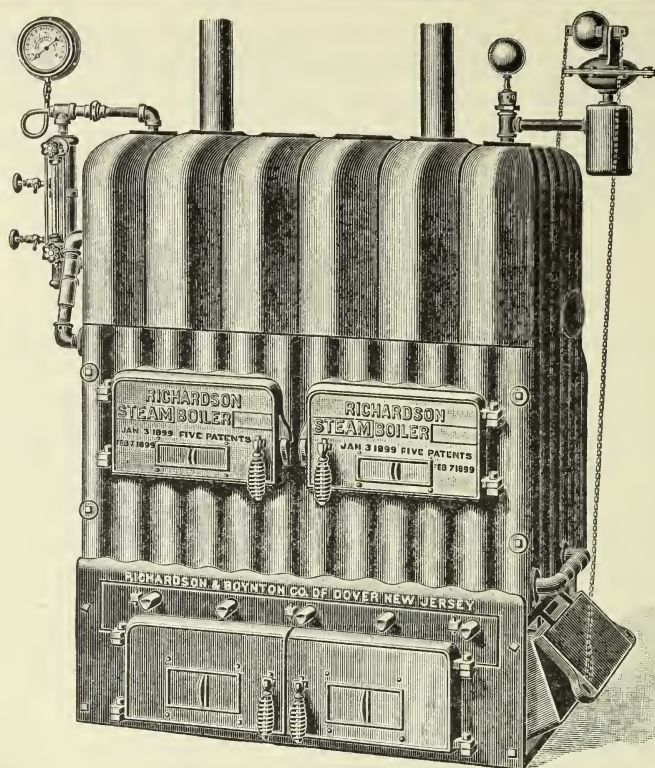
Subject: “For the Best Original Article Upon Matters Tending to Increase the Efficiency of the Individual Soldier, the Squad, Company, Troop or Battery, Published in the Journal of The Military Service Institution within the current year.”

Short Paper Prizes

Prizes—Fifty Dollars (each).

Subjects: Best Essay on Matters Directly Affecting the Line (“Hancock”), and the General Service (“Fry”), Respectively, Published in the Journal During a Twelvemonth.

* Conditions amended; competition limited to officers below grade of Lieut-Colonel.



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This department, in particular, is so generally patronized by officers in the service that among Tiffany & Co.'s hundred or more sample books there are those bearing the title, "Army Cards," "Navy Cards." These contain specimens of visiting cards prepared by Tiffany & Co. for officers in both branches of the service from whom the house is daily in receipt of orders posted from all parts of the world, wherever the men happen to be stationed. The collection is interesting, as it includes the names of the men prominent in one or the other branch of the service—many whose life-work has since closed fighting for their flag, either in foreign waters or on strange soil. There are also countless cards of West Point and Annapolis graduates, just starting out on their careers, whose cards will be changed from time to time as they win new titles in their journey through life.

Touching upon visiting cards, it is interesting to note the evolution in these apparently trivial, but important adjuncts of society.

The large card, oblong, then square, engraved in large Old English text or German text, in script, then the smaller script, then the Roman and now the small shaded Old English printed on small oblong cardboard for gentlemen and small square board for ladies. The present shaded Old English text and English script, printed on the Tiffany delicate gray-white board, is as nearly the perfection of these matters as has yet been reached. While not so much in vogue, the French script, upright and slanting, is also used; no letter, however, seems at present to be destined to supersede the refined English script as cut by Tiffany & Co.'s corps of engravers.

CONCRETE CONSTRUCTION.

Concrete construction dates back to the time of the Romans, who secured good results from a mixture of slaked lime, volcanic dust, sand and broken stone. Even this combination, crude in comparison with Portland Cement concrete, produced an artificial stone which has stood the test of nearly two thousand years, as evidenced by many works in Rome which are to-day in a perfect state of preservation.

"Portland Cement" is an invention of modern times; its universal use the matter of a quarter of a century. The honor of its discovery belongs to Joseph Aspdin, of Leeds, England, who took out a patent in 1824 for the

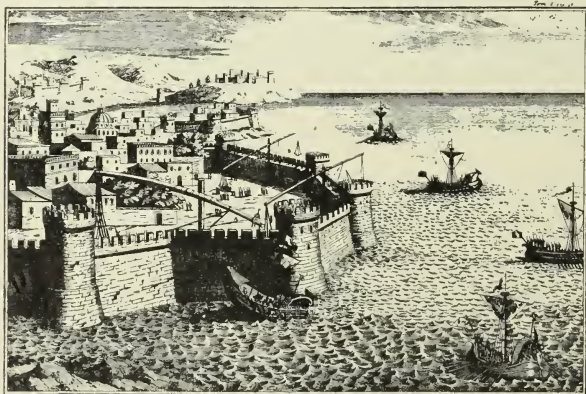
manufacture of "Portland Cement," so called because of its resemblance, in color, to a then popular limestone quarried on the island of Portland. Manufacture was begun in 1825, but progress was slow until about 1850, when, through improved methods and general recognition of its merits as a building material, commercial success was assured. About this time the manufacture of Portland Cement was taken up in earnest by the French and Germans, and, by reason of their more scientific efforts, both the method of manufacture and quality of the finished product were greatly improved. Portland Cement was first brought to the United States in 1865. It was first manufactured in this country in 1872, but not until 1896 did the annual domestic production reach the million-barrel mark.

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JOURNAL OF THE MILITARY SERVICE INSTITUTION

MAY - JUNE
1906



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1878

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BI-MONTHLY.

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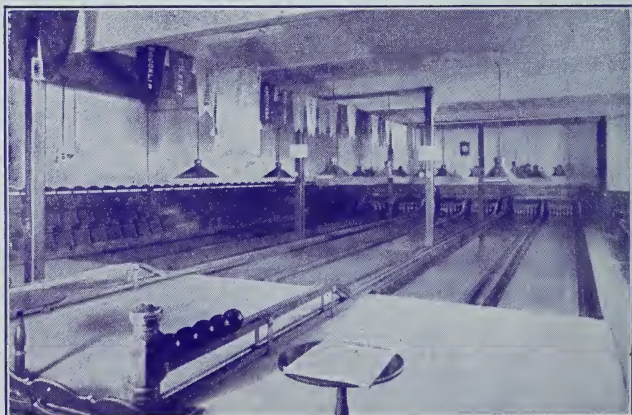
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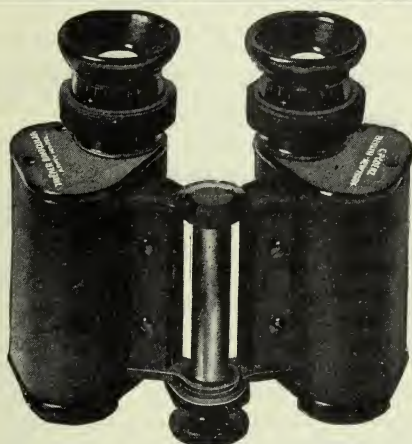
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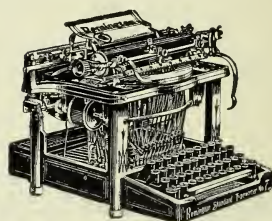
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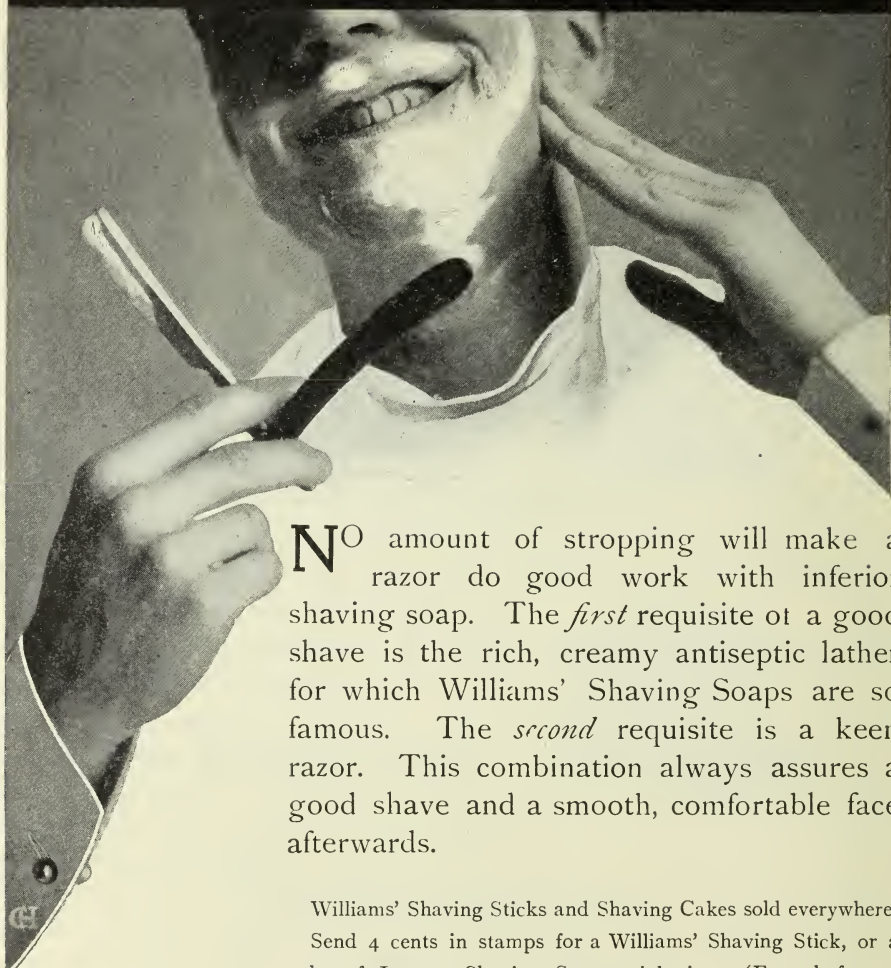
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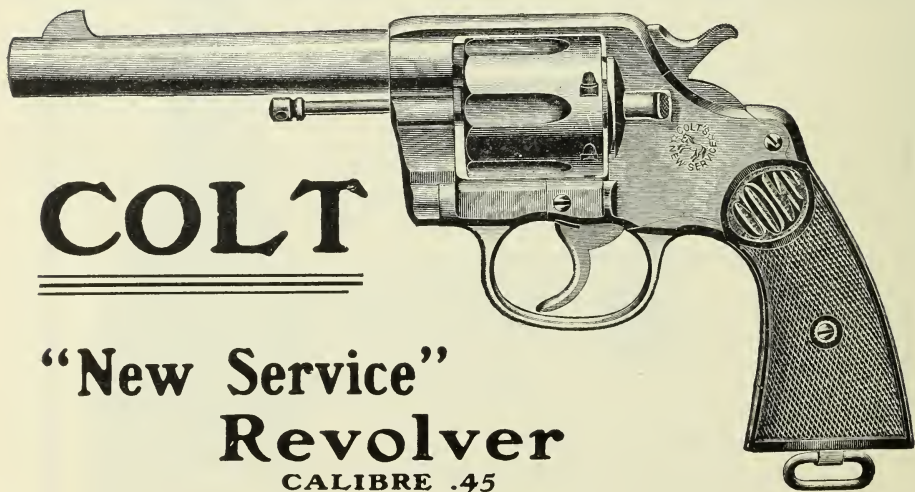
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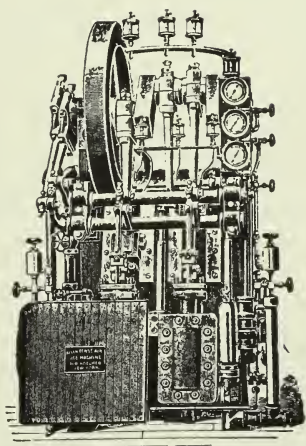
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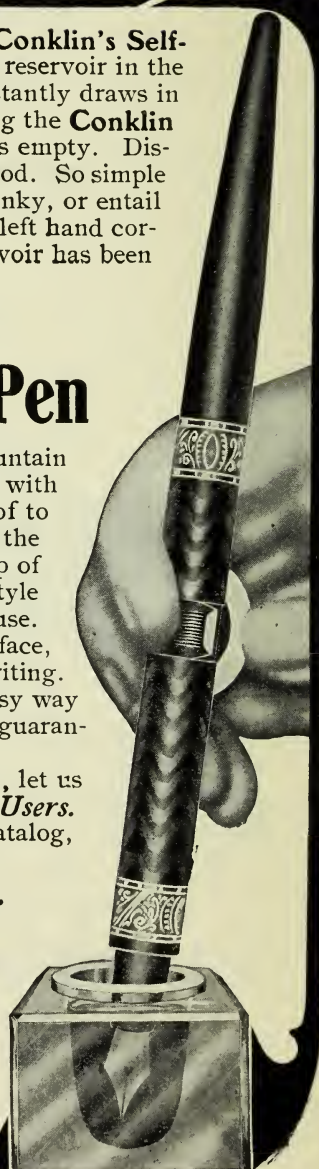
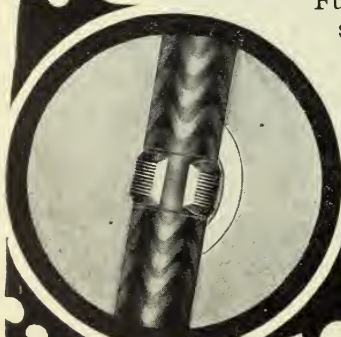
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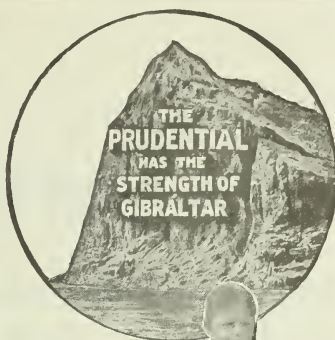
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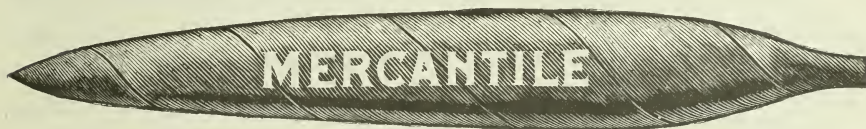


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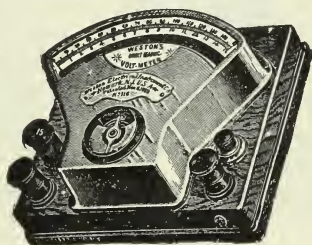
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